

## 4. Breakdown of Direct Cost

## Part A Facilities for the Engineer

## A(1)a Provision of Combined Field Office/Laboratory Bldg. and Living Quarter

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W3001	Site Preparation for Engineer's Field Office and Living Quarters	m2	1,800.00	1.6%	8.1%	90.3%	54.3%	45.7%	2.54	73.15	370.33	4,128.52	2,481.29	2,090.71	4,572.00	
W0105	Excavation, Backhoe 0.61m3	m3	181.28	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	333.65	622.81	6,457.90	3,920.61	3,493.74	7,414.35	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	52.77	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	405.16	724.96	3,782.77	2,526.06	2,386.83	4,912.89	
W0132	Backfill B	m3	128.51	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	1,109.95	1,427.16	11,727.50	7,306.75	6,957.86	14,264.61	
W0161	Gravel Foundation Fill	m3	59.98	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	5,905.02	3,053.64	14,493.52	9,101.62	14,350.56	23,452.18	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	16.93	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	660.92	21,935.77	4,322.01	15,291.94	11,626.76	26,918.70	
W0202	Concrete (Class B, 17MPa, max agg. 50mm)	m3	54.00	2.9%	77.5%	19.6%	56.2%	43.8%	1,360.00	2,153.76	56,883.57	14,402.67	41,277.33	32,162.67	73,440.00	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	70.93	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	2,885.89	35.88	15,378.17	8,241.25	10,058.69	18,299.94	
W0237	Concrete Curing (reinforced concrete)	m3	70.93	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	227.08	23.16	54.05	42.46	261.83	304.29	
W0241	Formwork (reinforced concrete H<4m)	m2	138.16	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	18,717.74	12,398.60	245.98	908.96	30,453.36	31,362.32	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	2,584.50	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	9,321.76	46,440.62	4,714.93	32,567.34	27,909.96	60,477.30	
W3002	150mm Thick Concrete Hollow Block Wall	m2	116.00	12.7%	84.2%	3.0%	36.4%	63.6%	331.00	4,883.57	32,346.49	1,165.94	13,981.71	24,414.29	38,396.00	
W3002a	100mm Thick Concrete Hollow Block Wall	m2	44.88	13.8%	82.9%	3.4%	37.4%	62.6%	306.00	1,894.52	11,378.60	460.16	5,130.09	8,603.19	13,733.28	
W3003	Structural Steel Fabrication and Erection for Engineers Office and Living Quarter	t	21.31	7.7%	67.0%	25.2%	60.2%	39.8%	39,000.00	64,349.32	556,908.75	209,831.93	499,935.08	331,154.92	831,090.00	
W3004	Prepainted Corrugated G.I. Roofing Fabrication & Erection	m2	526.19	8.4%	79.9%	11.8%	54.3%	45.7%	159.00	6,988.16	66,816.50	9,859.55	45,441.57	38,222.64	83,664.21	
W3005	Prepainted Steel Wall Panels on Steel Frames with Insulation	m2	150.27	2.5%	92.9%	4.6%	62.1%	37.9%	629.00	2,381.69	87,819.10	4,319.04	58,693.08	35,826.75	94,519.83	
W3006	Prepainted Steel Wall Partitions on Steel Frames with Insulation (Double Walling)	m2	152.31	2.5%	92.9%	4.6%	62.1%	37.9%	625.00	2,414.50	88,403.82	4,375.42	59,125.04	36,068.71	95,193.75	
W3007	Plain Cement Floor Finish	m2	312.00	7.7%	85.4%	6.8%	54.3%	45.7%	63.20	1,522.04	16,848.20	1,348.16	10,698.25	9,020.15	19,718.40	
W3008	Plain Cement Floor Finish with non skid cement with groove lines	m2	204.00	8.2%	85.0%	6.8%	54.0%	46.0%	63.60	1,061.45	11,028.66	884.29	7,003.88	5,970.52	12,974.40	
W3009	Un glazed Tile Finish (8" x 8")	m2	24.00	1.7%	97.8%	0.5%	60.2%	39.8%	589.00	237.31	13,828.71	69.98	8,512.22	5,623.78	14,136.00	
W3010	Gypsum Board Ceiling	m2	336.00	1.7%	97.8%	0.5%	60.2%	39.8%	351.00	1,979.83	115,372.33	583.84	71,017.03	46,918.97	117,936.00	
W3013	Doors & Windows for Engineer's Field Office and Living Quarters	L.S.	1.00	5.3%	90.6%	4.0%	41.3%	58.7%	355,000.00	18,952.04	321,677.95	14,370.01	146,627.84	208,372.16	355,000.00	
W3014	Lighting and Powers	L.S.	1.00	5.1%	93.4%	1.5%	56.6%	43.4%	139,000.00	7,083.42	129,872.46	2,044.12	78,653.55	60,346.45	139,000.00	
W3015	Sewer Water Line	L.S.	1.00	4.5%	94.8%	0.7%	49.7%	50.3%	115,000.00	5,192.02	109,010.95	797.03	57,207.35	57,792.65	115,000.00	
W3016	Septic Tank	each	1.00	14.6%	63.6%	21.8%	44.1%	55.9%	20,600.00	3,005.81	13,109.80	4,484.39	9,074.81	11,525.19	20,600.00	
W3017	Cyclone Fence and Gate for the Engineer's Office	m	40.00	3.3%	93.2%	3.5%	49.1%	50.9%	1,840.00	2,393.22	68,599.71	2,607.07	36,109.40	37,490.60	73,600.00	
W3018	Barbed Wire Fence for the Engineer's Office	m	130.00	5.5%	92.7%	1.7%	14.6%	85.4%	127.00	911.02	15,310.46	288.52	2,416.75	14,093.25	16,510.00	
W3019	Temporary Office Rental	month	3.00	0.0%	0.0%	100.0%	15.0%	85.0%	18,000.00	0.00	0.00	54,000.00	8,100.00	45,900.00	54,000.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									167,044.00	1,802,248.99	391,197.46	1,241,393.26	1,119,097.19	2,360,490.45	
	Components (%)									7.1%	76.4%	16.6%	52.6%	47.4%	100.0%	
	Unit Rate	L.S.								167,009.29	1,801,874.53	391,116.18	1,241,135.33	1,118,864.67	2,360,000.00	

## A(1)b Maintenance of Field Office/Laboratory Bldg. and Living Quarter

Unit: 1.00 month

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	122.50	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	39,200.00	0.00	0.00	0.00	39,200.00	39,200.00	
L020	Unskilled Labor	md	50.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	16,000.00	0.00	0.00	0.00	16,000.00	16,000.00	
L019	Skilled labor	md	25.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	10,250.00	0.00	0.00	0.00	10,250.00	10,250.00	
L020	Unskilled labor	md	25.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	8,000.00	0.00	0.00	0.00	8,000.00	8,000.00	
W01009	Electric Supply	kWh	2,200.00	0.0%	100.0%	0.0%	50.0%	50.0%	4.00	0.00	8,800.00	0.00	4,400.00	4,400.00	8,800.00	
W01010	Water Supply	m3	20.00	0.0%	100.0%	0.0%	10.0%	90.0%	66.20	0.00	1,324.00	0.00	1,191.60	1,324.00	1,324.00	
W01020	Propane Gas	kg	25.00	0.0%	100.0%	0.0%	50.0%	50.0%	32.60	0.00	815.00	0.00	407.50	407.50	815.00	
W3101	Miscellaneous for Office & Living Quarter Maintenance	month	1.00	0.0%	80.8%	19.2%	34.6%	65.4%	1,070.00	0.00	864.40	205.60	370.22	699.78	1,070.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									73,450.00	11,803.40	205.60	5,310.12	80,148.88	85,459.00	
	Components (%)									85.9%	13.8%	0.2%	6.2%	93.8%	100.0%	
	Unit Rate	month								73,485.24	11,809.06	205.70	5,312.67	80,187.33	85,500.00	

## A(1)c Provision of Furniture and Fixtures for the Field Office/Laboratory and Living Quarter

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W3102	Furniture and Fixtures for Field Office	L.S.	1.00	0.1%	99.1%	0.8%	34.5%	65.5%	332,000.00	493.07	328,877.23	2,629.70	114,671.09	217,328.91	332,000.00	
W3105	Furniture and Fixtures for Living Quarter	L.S.	1.00	0.1%	99.1%	0.8%	31.9%	68.1%	217,000.00	322.28	214,958.91	1,718.81	69,301.41	147,698.59	217,000.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									815.35	543,836.14	4,348.51	183,972.49	365,027.51	549,000.00	
	Components (%)									0.1%	99.1%	0.8%	33.5%	66.5%	100.0%	
	Unit Rate	L.S.								815.35	543,836.14	4,348.51	183,972.49	365,027.51	549,000.00	

## A(1)d Provision of Equipment and Appliances for the Field Office/Laboratory Bldg. and Living Quarter

Unit: 1.00 L.S.

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
W3103	Equipment and Appliances for Field Office	L. S.	1.00	0.1%	99.1%	0.8%	73.0%	27.0%	225,000.00	334.16	222,883.66	1,782.18	164,316.33	60,683.67	225,000.00	
W3106	Equipment and Appliances for Living Quarter	L. S.	1.00	0.1%	99.1%	0.8%	39.8%	60.2%	87,600.00	130.10	86,776.04	693.86	34,892.75	52,707.25	87,600.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									464.26	309,659.70	2,476.04	199,209.08	113,390.92	312,600.00	
	Components (%)									0.1%	99.1%	0.8%	63.7%	36.3%	100.0%	
	Unit Rate	L. S.								464.85	310,055.94	2,479.21	199,463.99	113,536.01	313,000.00	

## A(1)e Provision of Office Supplies and Consumable

Unit: 24.00 month

Unit Rate										Amount					Unit: 24.00 month	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)	Remarks	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
W3111	Office & Living Quarter Supplies	L.S.	1.00	0.3%	98.1%	1.6%	50.9%	49.1%	14,300.00	42.06	14,033.63	224.31	7,275.31	7,024.69	14,300.00	
W3112	Office & Living Quarter Consumables	month	24.00	0.3%	98.1%	1.6%	35.6%	64.4%	16,200.00	1,143.53	381,557.65	6,098.82	138,359.97	250,440.03	388,800.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,185.59	395,591.27	6,323.14	145,635.28	257,464.72	403,100.00	
	Components (%)									0.3%	98.1%	1.6%	36.1%	63.9%	100.0%	
	Unit Rate	month								49.41	16,487.06	263.53	6,069.64	10,730.36	16,800.00	

## A(1)f Provide/Operate/Maintain Communication Equipment

Unit: 24.00 month

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L012 W01015	Office Telephone	set	1.00	0.0%	100.0%	0.0%	80.0%	20.0%	1,000.00	0.00	1,000.00	0.00	800.00	200.00	1,000.00	
	Facsimile Machine	set	1.00	0.0%	100.0%	0.0%	80.0%	20.0%	27,000.00	0.00	27,000.00	0.00	21,600.00	5,400.00	27,000.00	
	Radio System (1 base + 4 portable receiver)	set	1.00	0.0%	100.0%	0.0%	80.0%	20.0%	41,000.00	0.00	41,000.00	0.00	32,800.00	8,200.00	41,000.00	
	Electrician	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	429.00	0.00	0.00	0.00	429.00	429.00	
	Telecommunication Fare	min	72,000.00	0.0%	100.0%	0.0%	45.0%	55.0%	1.00	0.00	72,000.00	0.00	32,400.00	39,600.00	72,000.00	
	Miscellaneous	LS	1.00	5.0%	55.0%	40.0%	55.0%	45.0%		70.71	777.86	565.72	777.86	636.43	1,414.29	1.0%
Total									499.71	141,777.86	565.72	88,377.86	54,465.43	142,843.29		
Components (%)									0.3%	99.3%	0.4%	61.9%	38.1%	100.0%		
Unit Rate			month						20.82	5,905.62	23.56	3,681.29	2,268.71	5,950.00		

Miscellaneous covers the costs for cables &amp; wires, maintenance, etc.

A(2)a Provision of vehicles (sedan) for the Engineer (Rental including operation & maintenance)

Unit: 1.00 veh-m

A2/a Provision of Vehicles (Sedan) for the Engineer (rental including operation & maintenance)																	Unit: 1.00 veh-m	
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks		
				Component (%)						Component (PP)								
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local				
1.004 M01006	Mazda B2200 double cab (diesel)	month	1.00	0.0%	0.0%	100.0%	85.0%	15.0%	52,800.00	0.00	0.00	52,800.00	44,880.00	7,920.00	52,800.00			
	Driver	md	34.38	100.0%	0.0%	0.0%	0.0%	100.0%	375.00	12,892.50	0.00	0.00	0.00	12,892.50	12,892.50			
	Gasoline	ltr	375.00	0.0%	100.0%	0.0%	65.0%	35.0%	14.20	0.00	5,325.00	0.00	3,461.25	1,863.75	5,325.00			
	Miscellaneous	LS	1.00	10.0%	55.0%	35.0%	55.0%	45.0%		71.02	390.60	248.56	390.60	319.58	710.18	1.0%		
	Total									12,963.52	5,715.60	53,048.56	48,731.85	22,995.83	71,727.68			
	Components (%)									18.1%	8.0%	74.0%	67.9%	32.1%	100.0%			
	Unit Rate	veh-m								12,958.52	5,713.39	53,028.09	48,713.04	22,986.96	71,700.00			

Miscellaneous covers the cost for ancillaries, maintenance expense, extra overtime, etc.

Bare Monthly Rental Cost = 52,800.00 PP/month

A(2)b Provision of vehicles (wagon) for the Engineer (Rental including operation & maintenance)

Unit: 1.00 veh-m

Provision of vehicles (Wagon) for the Engineer (rental including operation & maintenance)										Amount						Unit Rate		Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)			
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local				
1.004 M01006	Nissan Pathfinder, 4x4	month	1.00	0.0%	0.0%	100.0%	85.0%	15.0%	67,800.00	0.00	0.00	67,800.00	57,630.00	10,170.00	67,800.00	1.0%		
	Driver	md	34.38	100.0%	0.0%	0.0%	0.0%	100.0%	375.00	12,892.50	0.00	0.00	0.00	12,892.50	12,892.50			
	Gasoline	ltr	375.00	0.0%	100.0%	0.0%	65.0%	35.0%	14.20	0.00	5,325.00	0.00	3,461.25	1,863.75	5,325.00			
	Miscellaneous	LS	1.00	10.0%	55.0%	35.0%	55.0%	45.0%		86.02	473.10	301.06	473.10	387.08	860.18			
	Total										12,978.52	5,798.10	68,101.06	61,564.35	25,313.33		86,877.68	
	Components (%)									14.9%	6.7%	78.4%	70.9%	29.1%	100.0%			
	Unit Rate	veh-m								12,981.85	5,799.59	68,118.56	61,580.17	25,319.83	86,900.00			

Miscellaneous covers the cost for ancillaries, maintenance expense, extra overtime, etc.

Bare Monthly Rental Cost = 67,800.00 PP/month

A(2)c Provision of vehicles (pick-up) for the Engineer (Rental including operation & maintenance)

Unit: 1.00 veh-m

Provision of vehicles (pick-up) for the Engineer (enter including operation & maintenance)										Amount					Unit: 1.00 veh-m		Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Component (PP)					Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
1.004 M01006	Isuzu Pickup 2 door	month	1.00	0.0%	0.0%	100.0%	85.0%	15.0%	31,550.00	0.00	0.00	31,550.00	26,817.50	4,732.50	31,550.00	1.0%	
	Driver	md	34.38	100.0%	0.0%	0.0%	0.0%	100.0%	375.00	12,892.50	0.00	0.00	0.00	12,892.50	12,892.50		
	Gasoline	ltr	375.00	0.0%	100.0%	0.0%	65.0%	35.0%	14.20	0.00	5,325.00	0.00	3,461.25	1,863.75	5,325.00		
	Miscellaneous	LS	1.00	10.0%	55.0%	35.0%	55.0%	45.0%		49.77	273.72	174.19	273.72	223.95	497.68		
	Total									12,942.27	5,598.72	31,724.19	30,552.47	19,712.70	50,265.18		
	Components (%)									25.7%	11.1%	63.1%	60.8%	39.2%	100.0%		
	Unit Rate	veh-m								12,951.23	5,602.60	31,746.17	30,573.64	19,726.36	50,300.00		

Miscellaneous covers the cost for ancillaries, maintenance expense, extra overtime, etc.

Bare Monthly Rental Cost = 31,550.00 PP/month

A(3) Provision of Testing Equipment, Apparatus and Publications

Unit: 1.00 L.S.

A(3) Provision of Testing Equipment, Apparatus and Publications										Unit: 1.00 L.S.						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
	Testing equipment & apparatus for soil & aggregates	L.S.	1.00	0.0%	100.0%	0.0%	70.0%	30.0%	318,000.00	0.00	318,000.00	0.00	222,600.00	95,400.00	318,000.00	
	Testing equipment & apparatus for concrete	L.S.	1.00	0.0%	100.0%	0.0%	75.0%	25.0%	447,000.00	0.00	447,000.00	0.00	335,250.00	111,750.00	447,000.00	
	Testing equipment & apparatus for bituminous materials	L.S.	1.00	0.0%	100.0%	0.0%	70.0%	30.0%	250,000.00	0.00	250,000.00	0.00	175,000.00	75,000.00	250,000.00	
	Publication	L.S.	1.00	0.0%	100.0%	0.0%	100.0%	0.0%	20,700.00	0.00	20,700.00	0.00	20,700.00	0.00	20,700.00	
	Miscellaneous	LS	1.00	15.0%	15.0%	70.0%	45.0%	55.0%		776.78	776.78	3,624.95	2,330.33	2,848.18	5,178.50	0.5%
	Total									776.78	1,036,476.78	3,624.95	755,880.33	284,988.18	1,040,878.50	
	Components (%)									0.1%	99.6%	0.3%	72.6%	27.4%	100.0%	
	Unit Rate	L.S.								776.12	1,035,601.99	3,621.89	755,242.36	284,757.64	1,040,000.00	

Miscellaneous covers the costs for delivery, installation, etc.

## A(4) Progress Photographs

Unit: 100.00 each

Progress Photographs										Unit: 100.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
W15101	Film ASA 400 x 36	each	11.11	0.0%	100.0%	0.0%	70.0%	30.0%	169.00	0.00	1,877.59	0.00	1,314.31	563.28	1,877.59	Loss 300.0%
W15102	Film Development	each	11.11	0.0%	100.0%	0.0%	15.0%	85.0%	45.00	0.00	499.95	0.00	74.99	424.96	499.95	Loss 300.0%
W15103	Picture Prints	each	1,400.00	0.0%	100.0%	0.0%	15.0%	85.0%	6.00	0.00	8,400.00	0.00	1,260.00	7,140.00	8,400.00	Loss 300.0%
	Miscellaneous	LS	1.00	0.0%	90.0%	10.0%	55.0%	45.0%		0.00	503.44	55.94	307.66	251.72	559.38	5.0%
	Total									410.00	11,280.98	55.94	2,956.96	8,789.95	11,746.92	
	Components (%)									3.5%	96.0%	0.5%	25.2%	74.8%	100.0%	
	Unit Rate	each								4.08	112.36	0.56	29.45	87.55	117.00	

Miscellaneous covers the cost for album, glue, scissors, etc.  
Number of copies to be submitted = 10

## Part C Earthwork

## 100(1) Clearing and Grubbing

Unit: 1.00 ha

										Unit:		1.00 ha					
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks		
				Component (%)						Component (PP)				Total (PP)			
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign		Local		
W0001	Gross Cutting	m2	10,000.00	90.9%	0.9%	8.2%	4.5%	95.5%	1.11	10,090.91	100.91	908.18	504.55	10,595.45	11,100.00		
W0002	Tree Cutting	m2	1,000.00	92.6%	0.7%	6.7%	3.7%	96.3%	0.93	860.19	6.88	61.93	34.41	894.59	929.00		
W0003	Grubbing	m2	1,000.00	4.0%	7.9%	88.0%	53.0%	47.0%	24.90	1,006.83	1,975.19	21,917.98	13,207.24	11,692.76	24,900.00		
W0004	Burning	m2	1,000.00	100.0%	0.0%	0.0%	0.0%	100.0%	1.94	1,940.00	0.00	0.00	0.00	1,940.00	1,940.00		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%	
	Total									13,897.93	2,082.98	22,888.09	13,746.19	25,122.81	38,869.00		
	Components (%)									35.8%	5.4%	58.9%	35.4%	64.6%	100.0%		
	Unit Rate	ha								13,909.01	2,084.64	22,906.35	13,757.16	25,142.84	38,900.00		

## 100(3) Individual Removal of Trees, small (150mm ≤ φ &lt; 900mm)

Unit: 30.00 each

Unit Rate										Amount						Unit: 30.00 each	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)	Remarks	
				Lab	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
L002	Foreman	md	0.88	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	506.88	0.00	0.00	0.00	506.88	506.88		
L019	Skilled Labor	md	1.65	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	676.50	0.00	0.00	0.00	676.50	676.50		
L020	Unskilled Labor	md	3.26	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,043.20	0.00	0.00	0.00	1,043.20	1,043.20		
L020	Unskilled Labor	md	0.82	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	262.40	0.00	0.00	0.00	262.40	262.40		
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	55.0%	45.0%		0.00	19.91	179.21	109.52	89.60	199.12	8.0%	
	Total									2,488.98	19.91	179.21	109.52	2,578.58	2,688.10		
	Components (%)									92.6%	0.7%	6.7%	4.1%	95.9%	100.0%		
	Unit Rate	each								82.96	0.66	5.97	3.65	85.95	89.60		

Miscellaneous covers the cost for chain saw, ax, etc.

## 100(4) Individual Removal of Trees, large (φ &gt; 900mm)

Unit: 25.00 each

Unit: 25.00 each																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.01	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	581.76	0.00	0.00	0.00	581.76	581.76	
L019	Skilled Labor	md	2.13	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	873.30	0.00	0.00	0.00	873.30	873.30	
L020	Unskilled Labor	md	3.53	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,129.60	0.00	0.00	0.00	1,129.60	1,129.60	
L020	Unskilled Labor	md	0.82	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	262.40	0.00	0.00	0.00	262.40	262.40	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	55.0%	45.0%		0.00	22.78	204.99	125.27	102.49	227.76	
	Total									2,847.06	22.78	204.99	125.27	2,949.55	3,074.82	
	Components (%)									92.6%	0.7%	6.7%	4.1%	95.9%	100.0%	
	Unit Rate	each								113.89	0.91	8.20	5.01	117.99	123.00	
	Miscellaneous															

Miscellaneous covers the cost for chain saw, ax, etc.

## 101(1) Removal of Structures and Obstructions

Unit: 1.00 U.S.

Unit: 1.00 U.S.																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0011	Demolition by Crawler Drill (Lightly - Reinforced Structures)	m3	60.5	11.8%	6.3%	81.8%	48.6%	51.4%	625.00	4,474.85	2,397.55	30,940.10	18,373.03	19,439.47	37,812.50	
W0025	Disposal of Demolished Debris	m3	60.5	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	1,375.82	1,074.69	5,898.49	3,903.36	4,445.64	8,349.00	
	Miscellaneous	LS	1.0	0.0%	15.0%	85.0%	55.0%	45.0%		0.00	692.42	3,923.73	2,538.88	2,077.27	4,616.15	10.0%
	Total									5,850.67	4,166.66	40,762.32	24,815.28	25,962.37	50,777.65	
	Components (%)									11.5%	8.2%	80.3%	48.9%	51.1%	100.0%	
	Unit Rate	L.S.								5,853.25	4,166.49	40,780.26	24,826.20	25,973.80	50,800.00	
	Miscellaneous															

Miscellaneous covers the cost for earthworks, clearing, etc.

## 101(2)a Removal of Existing Pedestrian Bridge (San Jose, at Bridge No.2)

Unit: 1.00 each

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0012		Demolition by Crawler Drill (Heavily Reinforced Structures)	m3	44.80	12.7%	7.5%	79.8%	48.1%	51.9%	1,280.00	7,299.05	4,310.65	45,734.31	27,578.90	29,765.10	57,344.00	
W0025		Disposal of Demolished Debris	m3	44.80	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	1,018.79	795.80	4,367.80	2,890.42	3,291.98	6,182.40	
		Miscellaneous	LS	1.00	0.0%	15.0%	85.0%	55.0%	45.0%		0.00	476.45	2,699.87	1,746.98	1,429.34	3,176.32	5.0%
Total											8,317.84	5,582.90	52,801.98	32,216.30	34,486.42	66,702.72	
Components (%)											12.5%	8.4%	79.2%	48.3%	51.7%	100.0%	
Unit Rate			each								8,317.50	5,582.67	52,799.83	32,214.98	34,485.02	66,700.00	

Miscellaneous covers the cost for clearing, extra earthworks, etc.

## 101(2)b Removal of Existing Bridge (Plaridel at Bridge No.9)

Unit: 1.00 each

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0012		Demolition by Crawler Drill (Heavily Reinforced Structures)	m3	68.25	12.7%	7.5%	79.8%	48.1%	51.9%	1,280.00	11,119.64	6,567.00	69,673.36	42,014.73	45,345.27	87,360.00	
W0025		Disposal of Demolished Debris	m3	68.25	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	1,552.06	1,212.36	6,654.08	4,403.38	5,015.12	9,418.50	
		Miscellaneous	LS	1.00	0.0%	15.0%	85.0%	55.0%	45.0%		0.00	725.84	4,113.09	2,661.41	2,177.52	4,838.93	5.0%
Total											12,671.70	8,505.20	80,440.52	49,079.52	52,537.91	101,617.43	
Components (%)											12.5%	8.4%	79.2%	48.3%	51.7%	100.0%	
Unit Rate				each							12,719.41	8,537.22	80,743.37	49,264.29	52,735.71	102,000.00	

Miscellaneous covers the cost for clearing, extra earthworks, etc.

## 101(3)a Removal of Existing PCC Pavement

Unit: 10.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0015	Demolition of PCC Pavement by Crawler Drill	m2	10.00	3.5%	6.5%	90.1%	53.2%	46.8%	56.50	19.59	36.57	508.84	300.59	264.41	565.00	0.0%
W0025	Disposal of Demolished Debris	m3	2.50	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	56.85	44.41	243.74	161.30	183.70	345.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									76.44	80.98	752.57	461.89	448.11	910.00	
	Components (%)									8.4%	8.9%	82.7%	50.8%	49.2%	100.0%	
	Unit Rate	m2								7.64	8.10	75.26	46.19	44.81	91.00	

## 101(3)b Removal of Existing Gravel Pavement

Unit: 10.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0016	Excavation of Gravel Pavement	m3	2.50	4.5%	8.4%	87.1%	52.9%	47.1%	10.30	1.16	2.16	22.43	13.62	12.13	25.75	
W0025	Disposal of Demolished Debris	m3	2.50	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	56.85	44.41	243.74	161.30	183.70	345.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									58.01	46.57	266.17	174.91	195.84	370.75	
	Components (%)									15.6%	12.6%	71.8%	47.2%	52.8%	100.0%	
	Unit Rate	m2								5.81	4.66	26.63	17.50	19.60	37.10	

## 101(4)a Removal of Existing Fence (Net Fence with Barbed Wire and Wooden Posts)

Unit: 100.00 m

Unit Rate										Amount						Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L009	Welder	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	509.00	0.00	0.00	0.00	509.00	509.00	
L020	Unskilled Labor	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	480.00	0.00	0.00	0.00	480.00	480.00	
W0025	Disposal of Demolished Debris	m3	4.32	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	98.24	76.74	421.18	278.72	317.44	596.16	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	18.73	
Total										1,375.24	76.74	421.18	278.72	1,594.44	1,891.89	
Components (%)										72.7%	4.1%	22.3%	14.7%	84.3%	100.0%	
Unit Rate			m							13.74	0.77	4.21	2.78	15.93	18.90	

Miscellaneous covers the cost for wire cutter, acetylene gas, etc.

## 101(4)b Removal of Existing Fence (Net Fence with Barbed Wire and Concrete Posts)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L009	Welder	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	509.00	0.00	0.00	0.00	509.00	509.00	
L020	Unskilled Labor	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	480.00	0.00	0.00	0.00	480.00	480.00	
R0204-020	Pneumatic Breaker, Handhold	day	0.09	0.0%	0.0%	100.0%	54.3%	45.7%	457.00	0.00	0.00	41.13	22.33	18.80	41.13	
W0025	Disposal of Demolished Debris	m3	5.76	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	130.99	102.32	561.57	371.63	423.25	794.88	
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	4.23	16.90	11.62	9.51	21.13	1.0%
	Total									1,407.99	106.54	619.61	405.58	1,728.56	2,134.14	
	Components (%)									66.0%	5.0%	29.0%	19.0%	81.0%	100.0%	
	Unit Rate	m								14.05	1.06	6.18	4.05	17.25	21.30	

Miscellaneous covers the cost for wire cutter, acetylene gas, etc.

## 101(4)c Removal of Existing Fence (Concrete Hollow Block)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.30	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	748.80	0.00	0.00	0.00	748.80	748.80	
L019	Skilled Labor	md	4.86	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,992.60	0.00	0.00	0.00	1,992.60	1,992.60	
L020	Unskilled Labor	md	3.32	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,062.40	0.00	0.00	0.00	1,062.40	1,062.40	
R0204-020	Pneumatic Breaker, Handhold	day	3.40	0.0%	0.0%	100.0%	54.3%	45.7%	457.00	0.00	0.00	1,553.80	843.61	710.19	1,553.80	
W0025	Disposal of Demolished Debris	m3	27.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	614.00	479.61	2,632.38	1,742.00	1,984.00	3,726.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,417.80	479.61	4,186.18	2,585.61	6,497.99	9,083.60	
	Components (%)									48.6%	5.3%	46.1%	28.5%	71.5%	100.0%	
	Unit Rate	m								44.16	4.79	41.85	25.85	64.95	90.80	

## 101(5)a Removal of Existing Guardrails

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	8.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,784.00	0.00	0.00	0.00	2,784.00	2,784.00	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	2.25	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	137.26	243.26	978.48	688.93	670.07	1,359.00	
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	16.57	66.29	45.57	37.29	82.86	2.0%
	Total									2,921.26	259.83	1,044.77	734.50	3,491.36	4,225.86	
	Components (%)									69.1%	6.1%	24.7%	17.4%	82.6%	100.0%	
	Unit Rate	m								29.24	2.60	10.46	7.35	34.95	42.30	

Miscellaneous covers the cost for minor tools such as hammer, shovels, carts, etc.

## 101(5)b Relocation of Existing Guardrails

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	37.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	12,064.00	0.00	0.00	0.00	12,064.00	12,064.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	361.92	241.28	331.76	271.44	603.20	5.0%
	Total									12,064.00	361.92	241.28	331.76	12,335.44	12,667.20	
	Components (%)									95.2%	2.9%	1.9%	2.6%	97.4%	100.0%	
	Unit Rate	m								120.95	3.63	2.42	3.33	123.67	127.00	

Miscellaneous covers the cost for missing fixtures, minor tools such as hammer, shovels, carts, etc.

## 101(7) Removal of Existing Slope Protection

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0011	Demolition by Crawler Drill (Lightly Reinforced Structures)	m3	10.00	11.8%	6.3%	81.8%	48.6%	51.4%	625.00	739.64	396.29	5,114.07	3,036.87	3,213.13	6,250.00	
W0025	Disposal of Demolished Debris	m3	10.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	227.41	177.63	974.96	645.18	734.82	1,380.00	
	Miscellaneous	LS	1.00	5.0%	10.0%	85.0%	55.0%	45.0%		3.82	7.63	64.86	41.97	34.34	76.30	1.0%
	Total									970.87	581.55	6,153.88	3,724.01	3,982.29	7,706.30	
	Components (%)									12.6%	7.5%	79.9%	48.3%	51.7%	100.0%	
	Unit Rate	m3								97.13	58.18	615.68	372.58	398.42	771.00	

Miscellaneous covers the cost for earthworks, clearing, etc. as required.

## 101(8) Removal of Existing Slope Protection (Hand-laid Rock)

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	10.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	18.41	34.36	356.24	216.27	192.73	409.00	
W0025	Disposal of Demolished Debris	m3	10.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	227.41	177.63	974.96	645.18	734.82	1,380.00	
	Miscellaneous	LS	1.00	5.0%	10.0%	85.0%	55.0%	45.0%		0.89	1.79	15.21	9.84	8.05	17.89	1.0%
	Total									246.71	213.78	1,346.40	871.30	935.59	1,806.89	
	Components (%)									13.7%	11.8%	74.5%	48.2%	51.8%	100.0%	
	Unit Rate	m3								24.71	21.41	134.87	87.28	93.72	181.00	

Miscellaneous covers the cost for earthworks, clearing, etc. as required.

## 101(9) Removal of Existing Gabion

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	128.00	0.00	0.00	0.00	128.00	128.00	
W0105	Excavation, Backhoe 0.61m3	m3	10.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	18.41	34.36	356.24	216.27	192.73	409.00	
W0025	Disposal of Demolished Debris	m3	10.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	227.41	177.63	974.96	645.18	734.82	1,380.00	
	Miscellaneous	LS	1.00	0	0	1	1	0		0.96	1.92	16.29	10.54	8.63	19.17	1.0%
	Total									374.77	213.91	1,347.49	872.00	1,064.17	1,936.17	
	Components (%)									19.4%	11.0%	69.6%	45.0%	55.0%	100.0%	
	Unit Rate	m3								37.55	21.43	135.02	87.37	106.63	194.00	

Miscellaneous covers the cost for earthworks, clearing, etc. as required.

## SPL 101(10)a Relocation of Existing Transmission Line

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0011	Demolition by Crawler Drill (Lightly Reinforced Structures)	m3	9.00	11.8%	6.3%	81.8%	48.6%	51.4%	625.00	665.68	356.66	4,602.66	2,733.18	2,891.82	5,625.00	
W0025	Disposal of Demolished Debris	m3	9.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	204.67	159.87	877.46	580.67	661.33	1,242.00	
W0105	Excavation, Backhoe 0.61m3	m3	525.46	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	967.11	1,805.27	18,718.93	11,364.32	10,126.99	21,491.31	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	278.45	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	2,137.90	3,825.39	19,960.41	13,329.16	12,594.54	25,923.70	
W0132	Backfill B	m3	247.01	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	2,133.45	2,743.15	22,541.51	14,044.35	13,373.76	27,418.11	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	13.72	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	534.30	16,132.06	3,502.04	11,405.23	8,763.17	20,168.40	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	13.45	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	548.87	5.64	2,323.78	1,245.48	1,632.82	2,878.30	
W0236	Concrete Curing (plain concrete)	m3	13.45	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	86.04	10.58	24.69	19.40	101.92	121.32	
W0243	Formwork (lean concrete)	m2	6.56	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	418.00	577.81	7.87	38.14	965.54	1,003.68	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	284.07	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	11,089.57	368,062.25	72,519.48	256,584.84	195,086.46	451,671.30	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	278.50	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	11,331.17	140.89	60,380.95	32,358.49	39,494.51	71,853.00	
W0237	Concrete Curing (reinforced concrete)	m3	278.50	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	891.62	90.95	212.21	166.73	1,028.04	1,194.77	
W0241	Formwork (reinforced concrete H<4m)	m2	188.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	25,470.00	16,871.29	334.71	1,236.85	41,439.15	42,676.00	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	33,420.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	120,205.56	635,856.27	62,728.17	444,941.27	373,848.73	818,790.00	
L002	Foreman	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	1,728.00	0.00	0.00	0.00	1,728.00	1,728.00	
L009	Welder	md	5.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	2,545.00	0.00	0.00	0.00	2,545.00	2,545.00	
L012	Electrician	md	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	4,290.00	0.00	0.00	0.00	4,290.00	4,290.00	
L019	Skilled Labor	md	5.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,050.00	0.00	0.00	0.00	2,050.00	2,050.00	
L020	Unskilled Labor	md	5.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,600.00	0.00	0.00	0.00	1,600.00	1,600.00	
W02015	Structural Steel (Plates, SS400)	kg	50,246.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	1,014,969.20	0.00	710,478.44	304,490.76	1,014,969.20	
W13051	Electric Cable	m	12,960.00	0.0%	100.0%	0.0%	55.0%	45.0%	62.30	0.00	807,408.00	0.00	444,074.40	363,333.60	807,408.00	
R0604-020	Trailer 20t	hr	3.14	3.9%	10.7%	85.4%	53.3%	46.7%	1,670.00	204.51	561.09	4,478.21	2,795.27	2,448.53	5,243.80	
R0901-025	Welding Machine 250A	day	5.00	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	1,170.12	1,769.88	1,722.42	1,217.58	2,940.00	
R1001-200	Generator 151-200 kW	day	5.00	0.0%	47.6%	52.4%	59.4%	40.6%	5,280.00	0.00	12,566.40	13,833.60	15,687.09	10,712.91	26,400.00	
R0402-060	Truck Crane, Hydraulic 51-60t	hr	17.13	3.0%	5.1%	91.9%	53.1%	46.9%	2,510.00	1,289.89	2,192.81	39,513.60	22,848.31	20,147.99	42,996.30	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	6.28	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	383.11	678.97	2,731.05	1,922.88	1,870.24	3,793.12	
	Miscellaneous	LS	1.00	10.0%	40.0%	50.0%	55.0%	45.0%		102,240.61	408,962.44	511,203.05	562,323.35	460,082.74	1,022,406.09	30.0%
	Total									293,015.05	3,295,147.10	842,264.25	2,551,900.27	1,878,526.13	4,430,426.40	
	Components (%)									6.6%	74.4%	19.0%	57.6%	42.4%	100.0%	
	Unit Rate	L.S.								292,986.85	3,294,829.96	842,183.18	2,551,654.67	1,878,345.33	4,430,000.00	

Miscellaneous covers the costs for ancillary electric instruments and fixtures, overhead of the electric company, arrangement expense, minor tools, etc.

## SPL 101(10)b Shutdown Charge for the Relocation of Transmission Line

Unit: 1.00 day

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local	Total (PP)		
L002	Foreman	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	576.00	0.00	0.00	0.00	576.00	576.00		
L012	Electrician	md	2.00	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	858.00	0.00	0.00	0.00	858.00	858.00		
W01009	Electric Supply	kWh	500,000.00	0.0%	100.0%	0.0%	50.0%	50.0%	4.00	0.00	2,000,000.00	0.00	1,000,000.00	1,000,000.00	2,000,000.00		
	Miscellaneous	LS	1.00	15.0%	60.0%	25.0%	30.0%	70.0%	-	6,004.30	24,017.21	10,007.17	12,008.60	28,020.08	40,028.68	2.0%	
	Total									7,438.30	2,024,017.21	10,007.17	1,012,008.60	1,029,454.08	2,041,462.68		
	Components (%)									0.4%	99.1%	0.5%	49.6%	50.4%	100.0%		
	Unit Rate	day								7,432.97	2,022,567.03	10,000.00	1,011,283.51	1,028,716.49	2,040,000.00		

Miscellaneous covers the cost for maintenance expense, compensation, etc.

Average daily consumption per household = 100.00 kWh/day

Affected number of household = 5,000 household

## 101(11) Removal of Existing Combination Concrete Curb &amp; Gutter/Side Strip

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						Total (PP)	Remarks
				Component (%)						Component (PP)							
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	13.55	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	3,358.45	1,771.63	7,010.72	4,944.62	7,196.18	12,140.80		
W0111	Disposal of Surplus Soil (backhoe loading)	m3	13.55	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	104.04	186.15	971.32	648.63	612.88	1,261.51		
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		13.40	40.21	80.41	67.01	67.01	134.02	1.0%	
	Total									3,475.89	1,997.99	8,062.46	5,660.26	7,876.08	13,536.33		
	Components (%)									25.7%	14.8%	58.6%	41.8%	58.2%	100.0%		
	Unit Rate	m								34.67	19.93	80.41	56.45	78.55	135.00		

Miscellaneous covers the costs for recovering, recompaction, etc. of the disturbed base course, cart, shovels, minor tools, etc.

## 101(12) Relocation of Existing Road Signs

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0106	Excavation, Backhoe 0.61m3 + Manpower	m3	13.27	24.9%	6.6%	68.5%	41.6%	58.4%	59.80	197.98	52.39	543.19	329.77	463.78	793.55	
W0133	Backfill C	m3	13.27	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	223.68	227.25	1,473.21	948.89	975.26	1,924.15	
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.26	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	312.30	164.74	651.92	459.79	669.17	1,128.96	
L002	Foreman	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	144.00	0.00	0.00	0.00	144.00	144.00	
L020	Unskilled Labor	md	0.75	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	240.00	0.00	0.00	0.00	240.00	240.00	
W0106	Excavation, Backhoe 0.61m3 + Manpower	m3	13.27	24.9%	6.6%	68.5%	41.6%	58.4%	59.80	197.98	52.39	543.19	329.77	463.78	793.55	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	1.26	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	9.67	17.31	90.32	60.32	56.99	117.31	
W0133	Backfill C	m3	12.01	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	202.45	205.67	1,333.33	858.79	882.66	1,741.45	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.26	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	49.19	1,632.55	321.66	1,138.09	865.31	2,003.40	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,538.64	3,477.31	4,978.91	4,207.62	8,787.23	12,994.85	
	Components (%)									34.9%	26.8%	38.3%	32.4%	67.6%	100.0%	
	Unit Rate	each								454.04	347.87	498.09	420.93	879.07	1,300.00	

## 101(13) Removal of Existing Road Signs

Unit: 10.00 each

Unit Rate										Amount						Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0106	Excavation, Backhoe 0.61m3 + Manpower	m3	13.27	24.9%	6.6%	68.5%	41.6%	58.4%	59.80	197.98	52.39	543.19	329.77	463.78	793.55	
W0133	Backfill C	m3	13.27	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	223.68	227.25	1,473.21	948.89	975.26	1,924.15	
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.25	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	312.30	164.74	651.92	459.79	669.17	1,128.96	
L002	Foreman	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	144.00	0.00	0.00	0.00	144.00	144.00	
L020	Unskilled Labor	md	0.75	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	240.00	0.00	0.00	0.00	240.00	240.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										1,117.96	444.38	2,668.32	1,738.45	2,492.21	4,230.66	
Components (%)										26.4%	10.5%	63.1%	41.1%	58.9%	100.0%	
Unit Rate			each							111.78	44.43	266.79	173.82	249.18	423.00	



## 101(14) Removal of Existing Concrete Revetment

Unit: 1.00 L.S.

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0011		Demolition by Crawler Drill (Lightly Reinforced Structures)	m3	75.00	11.8%	6.3%	81.8%	48.6%	51.4%	625.00	5,547.34	2,972.16	38,355.50	22,776.49	24,098.51	46,875.00	
W0025		Disposal of Demolished Debris	m3	75.00	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	1,705.56	1,332.26	7,312.17	4,838.88	5,511.12	10,350.00	
		Miscellaneous	LS	1.00	0.0%	15.0%	85.0%	55.0%	45.0%		0.00	858.38	4,864.13	3,147.38	2,575.13	5,722.50	10.0%
		Total									7,252.90	5,162.80	50,531.80	30,762.74	32,184.76	62,947.50	
		Components (%)									11.5%	8.2%	80.3%	48.9%	51.1%	100.0%	
		Unit Rate	L.S.								7,247.43	5,158.91	50,493.67	30,739.53	32,160.47	62,900.00	

Miscellaneous covers the cost for earthworks, clearing, etc.

## 102(1) Unsuitable Excavation

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
R0101-021	Tractor, crawler w/dozer (Bulldozer, 21t)	hr	0.61	1.6%	8.1%	90.3%	54.3%	45.7%	4,160.00	40.60	205.55	2,291.45	1,377.19	1,160.41	2,537.60	
R0102-061	Backhoe, hydraulic, crawler, 0.61m3	hr	1.77	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	138.59	258.70	2,682.51	1,628.56	1,451.24	3,079.80	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	11.45	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	698.50	1,237.93	4,979.38	3,505.89	3,409.91	6,915.80	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									877.69	1,702.18	9,953.33	6,511.64	6,021.56	12,533.20	
	Components (%)									7.0%	13.6%	79.4%	52.0%	48.0%	100.0%	
	Unit Rate	m3								8.75	16.98	99.27	64.94	60.06	125.00	

Q = 60-q·f·E/Cm (Bulldozer)

Q : Excavation capacity per hour

q : Standard capacity per cycle

f : Volume coefficient

E : Efficiency

Cm: Cycle Time = 0.027·L + 0.79

L : Average pushing distance

Q = 3600-q·f·E/Cm (Backhoe)

Q : Excavation Volume per hour

q : Excavation Volume per Cycle

f : Volume Coefficient

E : Efficiency

Cm: Cycle Time

= 164.04 m3/hr

= 2.81 m3/cycle

= 1.00

= 0.90

= 0.93 min

= 5.00 m

= 56.64 m3/h

= 0.59 m3

= 1.00

= 0.80

= 30.00 sec

Q = q·f·E/Cm (Dump Truck)

Q : Transportation Volume per hour

q : Loading Capacity of a Truck

f : Volume Coefficient

E : Efficiency

Cm: Cycle Time = A + 2·L/V

V : Vehicle speed

a : Loading time

L : Average Distance to Disposal Point

= 8.73 m3/hr

= 6.50 m3

= 1.00

= 0.90

= 0.67 hr

= 25.00 km/hr

= 0.27 hr

= 5.00 km

## 102(2) Surplus Common Excavation

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
R0101-021	Tractor, crawler w/dozer (Bulldozer, 21t)	hr	0.61	1.6%	8.1%	90.3%	54.3%	45.7%	4,160.00	40.60	205.55	2,291.45	1,377.19	1,160.41	2,537.60	
R0102-061	Backhoe, hydraulic, crawler, 0.61m3	hr	1.77	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	138.59	258.70	2,682.51	1,628.56	1,451.24	3,079.80	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	11.45	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	698.50	1,237.93	4,979.38	3,505.89	3,409.91	6,915.80	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									877.69	1,702.18	9,953.33	6,511.64	6,021.56	12,533.20	
	Components (%)									7.0%	13.6%	79.4%	52.0%	48.0%	100.0%	
	Unit Rate	m3								8.75	16.98	99.27	64.94	60.06	125.00	

Q = 60-q·f·E/Cm (Bulldozer)

Q : Excavation capacity per hour

q : Standard capacity per cycle

f : Volume coefficient

E : Efficiency

Cm: Cycle Time = 0.027·L + 0.79

L : Average pushing distance

Q = 3600-q·f·E/Cm (Backhoe Loading)

Q : Excavation Volume per hour

q : Excavation Volume per Cycle

f : Volume Coefficient

E : Efficiency

Cm: Cycle Time

= 164.04 m3/hr

= 2.81 m3/cycle

= 1.00

= 0.90

= 0.93 min

= 5.00 m

= 56.64 m3/h

= 0.59 m3

= 1.00

= 0.80

= 30.00 sec

Q = q·f·E/Cm (Dump Truck)

Q : Transportation Volume per hour

q : Loading Capacity of a Truck

f : Volume Coefficient

E : Efficiency

Cm: Cycle Time = A + 2·L/V

V : Vehicle speed

a : Loading time

L : Average Distance to Disposal Point

= 8.73 m3/hr

= 6.50 m3

= 1.00

= 0.90

= 0.67 hr

= 25.00 km/hr

= 0.27 hr

= 5.00 km

## 103(1) Structure Excavation

										Unit: 100.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0105	Excavation, Backhoe 0.61m3	m3	100.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	184.05	343.56	3,562.39	2,162.74	1,927.26	4,090.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	31.90	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	244.92	438.25	2,286.72	1,527.03	1,442.86	2,969.89	
W0132	Backfill B	m3	68.10	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	588.19	756.28	6,214.63	3,871.99	3,687.11	7,559.10	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,017.16	1,538.09	12,063.74	7,561.75	7,057.24	14,618.99	
	Components (%)									7.0%	10.5%	82.5%	51.7%	48.3%	100.0%	
	Unit Rate	m3								10.16	15.36	120.48	75.52	70.48	146.00	

## 103(2)a Bridge Excavation above OWL (Common Soil)

Unit: 100.00 m3																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0105	Excavation, Backhoe 0.61m3	m3	100.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	184.05	343.56	3,562.39	2,162.74	1,927.26	4,090.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	33.60	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	257.98	461.60	2,408.58	1,608.40	1,519.76	3,128.16	
W0132	Backfill B	m3	66.40	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	573.50	737.40	6,059.50	3,775.33	3,595.07	7,370.40	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,015.53	1,542.56	12,030.47	7,546.47	7,042.09	14,588.56	
	Components (%)									7.0%	10.6%	82.5%	51.7%	48.3%	100.0%	
	Unit Rate	m3								10.16	15.44	120.40	75.52	70.48	146.00	

## 103(2)b Bridge Excavation above OWL (Rocky Soil)

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0108	Excavation, Backhoe 0.61m3 + Crawler Drill	m3	100.00	3.5%	6.5%	90.1%	53.2%	46.8%	185.00	641.52	1,197.50	16,660.98	9,842.39	8,657.61	18,500.00	0.0%
W0111	Disposal of Surplus Soil (backhoe loading)	m3	100.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	767.79	1,373.82	7,168.40	4,786.91	4,523.09	9,310.00	
W0132	Backfill B	m3	0.00	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									1,409.31	2,571.32	23,829.38	14,629.30	13,180.70	27,810.00	
	Components (%)									5.1%	9.2%	85.7%	52.6%	47.4%	100.0%	
	Unit Rate	m3								14.09	25.70	238.21	146.24	131.76	278.00	

## 103(2)c Bridge Excavation below OWL (Common Soil)

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks
				Component (%)						Component (PP)					
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
W0401	Temporary Sheet Pile Driving for excavation, (Vibro Hammer, Common Soil)	m2	123.90	10.4%	13.5%	76.1%	49.9%	50.1%	200.00	2,573.80	3,337.25	18,868.95	12,355.61	12,424.39	24,780.00
W0403	Temporary Sheet Pile Removal for excavation, (Vibro Hammer)	m2	123.90	10.4%	13.5%	76.2%	49.9%	50.1%	169.00	2,172.88	2,818.11	15,948.10	10,441.32	10,497.78	20,939.10
W0411	Temporary Struts & Supports Installation	t	1.98	34.0%	9.4%	56.6%	36.7%	63.3%	1,400.00	943.14	261.17	1,567.68	1,015.96	1,756.04	2,772.00
W0412	Temporary Struts & Supports Removal	t	1.98	35.7%	9.1%	55.2%	35.5%	64.5%	833.00	588.36	150.11	910.87	585.66	1,063.68	1,649.34
M05031	Temporary Sheet Pile Depreciation	t-d	520.20	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	17,322.66	0.00	8,661.33	8,661.33	17,322.66
M05041	Temporary Steel Shapes Depreciation	t-d	55.60	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	1,740.28	0.00	870.14	870.14	1,740.28
W0105	Excavation, Backhoe 0.61m3	m3	100.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	184.05	343.56	3,562.39	2,162.74	1,927.26	4,090.00
W0111	Disposal of Surplus Soil (backhoe loading)	m3	23.30	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	178.89	320.10	1,670.24	1,115.35	1,053.88	2,169.23
W0132	Backfill B	m3	76.70	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	662.46	851.79	6,999.45	4,360.96	4,152.74	8,513.70
W0431	Temporary Drain Pump Installation & Removal	set	0.72	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	975.86	148.19	963.95	620.11	1,467.89	2,088.00
W0432	Temporary Drain Pump Operation	day	20.10	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	1,980.90	4,956.47	16,981.64	12,263.02	11,655.98	23,919.00
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00
	Total									10,260.35	32,249.70	67,473.26	54,452.22	55,531.09	109,983.31
	Components (%)									9.3%	29.3%	61.3%	49.5%	50.5%	100.0%
	Unit Rate	m3								102.62	322.55	674.84	544.60	555.40	1,100.00

## 103(2)d Bridge Excavation below OWL (Rocky Soil)

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0402	Temporary Sheet Pile Driving for excavation, (Vibro Hammer, Rocky Soil)	m2	123.90	10.4%	13.5%	76.1%	49.9%	50.1%	256.00	3,296.63	4,273.86	24,147.91	15,814.27	15,904.13	31,718.40	
W0403	Temporary Sheet Pile Removal for excavation, (Vibro Hammer)	m2	123.90	10.4%	13.5%	76.2%	49.9%	50.1%	169.00	2,172.88	2,818.11	15,948.10	10,441.32	10,497.78	20,939.10	
W0411	Temporary Struts & Supports Installation	t	1.98	34.0%	9.4%	56.6%	36.7%	63.3%	1,400.00	943.14	261.17	1,567.68	1,015.96	1,756.04	2,772.00	
W0412	Temporary Struts & Supports Removal	t	1.98	35.7%	9.1%	55.2%	35.5%	64.5%	833.00	588.36	150.11	910.87	585.66	1,063.68	1,649.34	
M05031	Temporary Sheet Pile Depreciation	t-d	520.20	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	17,322.66	0.00	8,661.33	8,661.33	17,322.66	
M05041	Temporary Steel Shapes Depreciation	t-d	55.60	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	1,740.28	0.00	870.14	870.14	1,740.28	
W0108	Excavation, Backhoe 0.6m3 + Crawler Drill	m3	100.00	3.5%	6.5%	90.1%	53.2%	46.8%	185.00	641.52	1,197.50	16,660.98	9,842.39	8,657.61	18,500.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	100.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	767.79	1,373.82	7,168.40	4,786.91	4,523.09	9,310.00	
W0132	Backfill B	m3	0.00	7.8%	10.0%	82.2%	51.2%	48.8%	111.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0431	Temporary Drain Pump Installation & Removal	set	0.72	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	975.86	148.19	963.95	620.11	1,467.89	2,088.00	
W0432	Temporary Drain Pump Operation	day	20.10	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	1,980.90	4,956.47	16,981.64	12,263.02	11,655.98	23,919.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									11,367.08	34,242.18	84,349.52	64,901.12	65,057.66	129,958.78	
	Components (%)									8.7%	26.3%	64.9%	49.9%	50.1%	100.0%	
	Unit Rate	m3								113.71	342.53	843.76	649.22	650.78	1,300.00	

## 103(3)a Gravel Foundation Fill

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L019	Skilled Labor	md	0.30	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	123.00	0.00	0.00	0.00	123.00	123.00	
L020	Unskilled Labor	md	1.80	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	576.00	0.00	0.00	0.00	576.00	576.00	
W0122	Crushed Aggregate, transported	m3	12.00	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	285.21	480.50	2,330.29	1,454.38	1,641.62	3,096.00	Loss 20.0%
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	22.77	91.08	62.62	51.23	113.85	3.0%
	Total									984.21	503.27	2,421.37	1,517.00	2,391.85	3,908.85	
	Components (%)									25.2%	12.9%	61.9%	38.8%	61.2%	100.0%	
	Unit Rate	m3								98.45	50.34	242.21	151.74	239.26	391.00	

Miscellaneous covers the cost for depreciation of compaction equipment, fuel, etc.

## 103(3)b Selected Sand Bedding

Unit: 10.00 m3

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L019		Skilled Labor	md	0.30	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	123.00	0.00	0.00	0.00	123.00	123.00	
L020		Unskilled Labor	md	1.80	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	576.00	0.00	0.00	0.00	576.00	576.00	
W0128		Selected Sand, transported	m3	12.00	12.9%	20.0%	67.1%	43.5%	56.5%	166.00	256.85	398.85	1,336.30	866.35	1,125.65	1,992.00	Loss 20.0%
		Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	16.15	64.58	44.40	36.33	80.73	3.0%
Total											955.85	415.00	1,400.88	910.75	1,860.98	2,771.73	
Components (%)											34.5%	15.0%	50.5%	32.9%	67.1%	100.0%	
Unit Rate				m3							95.53	41.47	140.00	91.02	185.98	277.00	

Miscellaneous covers the cost for depreciation of compaction equipment, fuel, etc.

## 103(6) Pipe Culverts and Drain Excavation

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.6m3	m3	100.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	184.05	343.56	3,562.39	2,162.74	1,927.26	4,090.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	83.90	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	644.17	1,152.63	6,014.29	4,016.22	3,794.87	7,811.09	
W0133	Backfill C	m3	16.10	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	271.39	275.72	1,787.39	1,151.25	1,183.25	2,334.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,099.61	1,771.91	11,364.07	7,330.21	6,905.38	14,235.59	
	Components (%)									7.7%	12.4%	79.8%	51.5%	48.5%	100.0%	
	Unit Rate	m3								10.97	17.67	113.36	73.12	68.88	142.00	

## 103(7) Granular Backfill for Pipe Culverts

Unit: 10.00 m3

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
W0128	Selected Sand, transported	m3	12.00	12.9%	20.0%	67.1%	43.5%	56.5%	166.00	256.85	398.85	1,336.30	866.35	1,125.65	1,992.00	Loss 20.0%
L020	Unskilled Labor	md	1.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	608.00	0.00	0.00	0.00	608.00	608.00	
R0307-000	Plate Compactor	day	0.16	0.0%	17.7%	82.3%	56.2%	43.8%	780.00	0.00	22.09	102.71	70.14	54.66	124.80	
R0306-006	Vibration Rammer, 6in	day	0.27	0.0%	49.4%	50.6%	59.7%	40.3%	158.00	0.00	21.07	21.59	25.46	17.20	42.66	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										864.85	442.01	1,460.60	961.95	1,805.51	2,767.46	
Components (%)										31.3%	16.0%	52.8%	34.8%	65.2%	100.0%	
Unit Rate										86.56	44.24	146.19	96.28	180.72	277.00	

## 104(1) Embankment from Excavated Soil

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0101	Excavation, Bulldozer 21t	m3	120.00	1.6%	8.1%	90.3%	54.3%	45.7%	25.40	48.77	246.89	2,752.34	1,654.20	1,393.80	3,048.00	Loss 20.0%
W0123	Excavated Soil, transported	m3	120.00	7.4%	13.3%	79.3%	51.8%	48.2%	63.70	564.94	1,016.93	6,062.13	3,955.84	3,688.16	7,644.00	Loss 20.0%
W0141	Filling & Laving, bulldozer 15t	m3	100.00	3.0%	7.8%	89.2%	53.6%	46.4%	27.50	82.50	214.50	2,453.00	1,473.42	1,276.58	2,750.00	
W0147	Compaction, tire roller 8~20t	m3	100.00	4.4%	8.0%	87.6%	52.7%	47.3%	10.40	45.76	83.20	911.04	548.38	491.62	1,040.00	
W0151	Slope Formation by Bulldozer	m2	9.74	7.5%	7.4%	85.0%	51.1%	48.9%	39.70	29.16	28.75	328.78	197.48	189.20	386.68	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									771.12	1,590.27	12,507.29	7,829.33	7,039.35	14,868.68	
	Components (%)									5.2%	10.7%	84.1%	52.7%	47.3%	100.0%	
	Unit Rate	m3								7.73	15.94	125.34	78.46	70.54	149.00	

## 104(3) Embankment from Borrow Soil

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0121	Borrow Soil, transported	m3	120.00	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	763.17	3,415.47	8,781.36	5,827.54	7,132.46	12,960.00	Loss 20.0%
W0141	Filling & laying, bulldozer 15t	m3	100.00	3.0%	7.8%	89.2%	53.6%	46.4%	27.50	82.50	214.50	2,453.00	1,473.42	1,276.58	2,750.00	
W0147	Compaction, tire roller 8~20t	m3	100.00	4.4%	8.0%	87.6%	52.7%	47.3%	10.40	45.76	83.20	911.04	548.38	491.62	1,040.00	
W0151	Slope Formation by Bulldozer	m2	9.74	7.5%	7.4%	85.0%	51.1%	48.9%	39.70	29.16	28.75	328.78	197.48	189.20	386.68	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										920.58	3,741.92	12,474.18	8,046.82	9,089.86	17,136.68	
Components (%)										5.4%	21.8%	72.8%	47.0%	53.0%	100.0%	
Unit Rate										9.19	37.34	124.47	80.30	90.70	171.00	

## 104(4) Embankment from Borrow (Selected Granular Material) for Bridge

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0128	Selected Sand, transported	m3	120.00	12.9%	20.0%	67.1%	43.5%	56.5%	166.00	2,568.50	3,988.50	13,362.99	8,663.51	11,256.49	19,920.00	Loss 20.0%
W0141	Filling & Laving, bulldozer 15t	m3	100.00	3.0%	7.8%	89.2%	53.6%	46.4%	27.50	82.50	214.50	2,453.00	1,473.42	1,276.58	2,750.00	
W0145	Compaction, bulldozer 15t	m3	100.00	3.0%	7.8%	89.2%	53.6%	46.4%	24.00	72.00	187.20	2,140.80	1,285.90	1,114.10	2,400.00	
W0151	Slope Formation by Bulldozer	m2	9.74	7.5%	7.4%	85.0%	51.1%	48.9%	39.70	29.16	28.75	328.78	197.48	189.20	386.68	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										2,752.16	4,418.95	18,285.57	11,620.31	13,836.37	25,456.68	
Components (%)										10.8%	17.4%	71.8%	45.6%	54.4%	100.0%	
Unit Rate		m3								27.57	44.26	183.17	116.40	138.60	255.00	

## 105(1) Subgrade Preparation (Common Soil)

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)					Labor		Material	Component (PP)		Total (PP)			
				Lab.	Mat.	Equip.	For.	Local				Equipment	Foreign		Local		
L020	Unskilled Labor	md	0.13	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	41.60	0.00	0.00	0.00	41.60	41.60		
R0301-371	Motor Grader, 3.71m	hr	0.26	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	21.45	40.01	518.34	308.27	271.53	579.80		
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	0.17	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	14.22	30.87	301.72	183.62	163.18	346.80		
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	0.17	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	14.74	26.79	293.37	176.59	158.31	334.90		
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	0.11	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	6.85	14.71	38.50	30.46	29.60	60.06		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%	
Total										98.85	112.38	1,151.93	698.94	664.22	1,363.16		
Components (%)										7.3%	8.2%	84.5%	51.3%	48.7%	100.0%		
Unit Rate										0.99	1.12	11.49	6.97	6.63	13.60		

## 105(2) Subgrade Preparation (Existing Gravel Surface)

Unit: 100.00 m2

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
L020	Unskilled Labor	md	0.13	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	41.60	0.00	0.00	0.00	41.60	41.60	
R0301-371	Motor Grader, 3.7lm	hr	0.26	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	21.45	40.01	518.34	308.27	271.53	579.80	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	0.17	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	14.22	30.87	301.72	183.62	163.18	346.80	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	0.17	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	14.74	26.79	293.37	176.59	158.31	334.90	
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	0.11	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	6.85	14.71	38.50	30.46	29.60	60.06	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										98.85	112.38	1,151.93	698.94	664.22	1,363.16	
Components (%)										7.3%	8.2%	84.5%	51.3%	48.7%	100.0%	
Unit Rate										0.99	1.12	11.49	6.97	6.63	13.60	

## Part D Subbase and Base Course

## 200(1) Aggregate Subbase Course

Unit: 100.00 m3

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
L020	Unskilled Labor	md	1.36	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	435.20	0.00	0.00	0.00	435.20	435.20	
R0301-371	Motor Grader, 3.7lm	hr	2.48	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	204.62	381.60	4,944.18	2,940.39	2,590.01	5,530.40	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	2.08	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	173.97	377.64	3,691.58	2,246.70	1,996.50	4,243.20	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	2.08	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	180.29	327.81	3,589.50	2,160.62	1,936.98	4,097.60	
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	1.36	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	84.65	181.93	475.98	376.56	366.00	742.56	
W0122	Crushed Aggregate, transported	m3	128.00	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	3,042.22	5,125.31	24,856.47	15,513.37	17,510.63	33,024.00	Loss 28.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										4,120.96	6,394.29	37,557.71	23,237.64	24,835.32	48,072.96	
Components (%)										8.6%	13.3%	78.1%	48.3%	51.7%	100.0%	
Unit Rate			m3							41.23	63.98	375.79	232.51	248.49	481.00	

Thickness = 0.250 m  
Compaction layer thickness = 0.200 m

## 200(2) Aggregate Subbase Course using materials born by removal of existing gravel pavement

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	1.36	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	435.20	0.00	0.00	0.00	435.20	435.20	
R0301-371	Motor Grader, 3.7lm	hr	2.48	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	204.62	381.60	4,944.18	2,940.39	2,590.01	5,530.40	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	2.08	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	173.97	377.64	3,691.58	2,246.70	1,996.50	4,243.20	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	2.08	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	180.29	327.81	3,589.50	2,160.62	1,936.98	4,097.60	
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	1.36	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	84.65	181.93	475.98	376.56	366.00	742.56	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										1,078.74	1,268.98	12,701.24	7,724.27	7,324.69	15,048.96	
Components (%)										7.2%	8.4%	84.4%	51.3%	48.7%	100.0%	
Unit Rate			m3							10.75	12.65	126.60	76.99	73.01	150.00	

Thickness = 0.250 m  
Compaction layer thickness = 0.200 m

201(1) Aggregate Base Course				Unit: 100.00 m3												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Component (PP) Equipment	Foreign	Local		
L020	Unskilled Labor	md	1.76	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	563.20	0.00	0.00	0.00	563.20		
R0301-371	Motor Grader, 3.7m	hr	2.48	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	204.62	381.60	4,944.18	2,940.39	2,590.01	5,530.40	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, Tandem, 8~10t)	hr	2.64	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	220.81	479.32	4,685.47	2,851.58	2,534.02	5,385.60	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	2.64	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	228.84	416.06	4,555.90	2,742.33	2,458.47	5,200.80	
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	1.68	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	104.57	224.73	587.98	465.17	452.11	917.28	
W0122	Crushed Aggregate, transported	m3	128.00	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	3,042.22	5,125.31	24,856.47	15,513.37	17,510.63	33,024.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										4,364.26	6,627.03	39,629.99	24,512.83	26,108.45	50,621.28	
Components (%)										8.6%	13.1%	78.3%	48.4%	51.6%	100.0%	
Unit Rate			m3							43.62	66.24	396.13	245.03	260.97	506.00	
Thickness =			0.250 m													
Compaction layer thickness =			0.150 m													

204(1) Cement Stabilized Sand Base Course										Unit: 100.00 m3							
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks		
				Component (%)						Component (PP)							
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)		
L020	Unskilled Labor	md	1.67	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	534.40	0.00	0.00	0.00	0.00	534.40	534.40	
W0128	Selected Sand, transported	m3	120.75	12.9%	20.0%	67.1%	43.5%	56.5%	166.00	2,584.56	4,013.43	13,446.51	8,717.66	11,326.84	20,044.50		Loss 28.0%
W03011	Portland Cement, ordinary	t	5.77	0.0%	100.0%	0.0%	60.0%	40.0%	3,375.00	0.00	19,473.75	0.00	11,684.25	7,789.50	19,473.75		Loss 2.0%
R0402-005	Truck Crane, Hydraulic 2-5t	hr	1.90	18.2%	10.9%	70.9%	45.6%	54.4%	413.00	142.82	85.53	556.35	357.90	426.80	784.70		
R0302-000	Soil Stabilizer/Road Reclaimer	hr	2.00	1.4%	4.2%	94.4%	54.0%	46.0%	5,840.00	163.52	490.56	11,025.92	6,303.36	5,376.64	11,680.00		
R0301-371	Motor Grader, 3.7m	hr	1.67	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	137.79	256.96	3,329.35	1,980.02	1,744.08	3,724.10		
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	1.67	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	144.76	263.19	2,881.95	1,734.73	1,555.17	3,289.90		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00		0.0%	
Total										3,707.84	24,583.43	31,240.08	30,777.92	28,753.43	59,531.35		
Components (%)										6.2%	41.3%	52.5%	51.7%	48.3%	100.0%		
Unit Rate										37.06	245.70	312.24	307.62	287.38	595.00		
Thickness =			0.300 m Cement 6.0%														

Part E Surface Courses

300(1) Gravel Surface Course										Unit: 100.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	704.00	0.00	0.00	0.00	704.00	704.00	
R0301-371	Motor Grader, 3.7m	hr	3.10	3.7%	6.9%	89.4%	53.2%	46.8%	2,230.00	255.78	477.00	6,180.22	3,675.48	3,237.52	6,913.00	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, Landem, 8~10t)	hr	3.30	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	276.01	599.15	5,856.84	3,564.47	3,167.53	6,732.00	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	3.30	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	286.04	520.08	5,694.88	3,427.91	3,073.09	6,501.00	
R1103-450	Water Wagon/Pump Truck 500-1000 gal (2200-4500 ltr)	hr	2.10	11.4%	24.5%	64.1%	50.7%	49.3%	546.00	130.71	280.92	734.97	581.46	565.14	1,146.60	
W0129	Gravel/Stone, transported	m3	132.00	11.8%	18.6%	69.5%	44.8%	55.2%	197.00	3,080.95	4,846.86	18,076.19	11,656.31	14,347.69	26,004.00	Loss 32.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										4,733.50	6,724.00	36,543.10	22,905.63	25,094.97	48,000.60	
Components (%)										9.9%	14.0%	76.1%	47.7%	52.3%	100.0%	
Unit Rate			m3							47.33	67.24	365.43	229.05	250.95	480.00	
Thickness =			0.200 m													
Compaction layer thickness =			0.150 m													

301(1) Prime Coat										Unit: 1.00 t						
Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Remarks
				Component (%)							Component (PP)					
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L020	Unskilled Labor	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	128.00	0.00	0.00	0.00	128.00	128.00	
M07011	Prime Coat	t	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	22,635.00	0.00	22,635.00	0.00	14,712.75	7,922.25	22,635.00	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	50.0%	50.0%		0.00	22.76	204.87	113.82	113.82	227.63	1.0%
	Total									128.00	22,657.76	204.87	14,826.57	8,164.07	22,990.63	
	Components (%)									0.6%	98.6%	0.9%	64.5%	35.5%	100.0%	
	Unit Rate	t								128.05	22,667.00	204.95	14,832.61	8,167.39	23,000.00	
Miscellaneous covers the costs for minor tools, cleaning, etc.																

302(1)		Tack Coat		Unit: 1.00 t													
Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)							Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
L020	Unskilled Labor	md	0.47	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	150.40	0.00	0.00	0.00				
M07012	Tack Coat	t	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	22,635.00	0.00	22,635.00	0.00	14,712.75	7,922.25		22,635.00	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	50.0%	50.0%		0.00	22.79	205.07	113.93	113.93		227.85	1.0%
	Total									150.40	22,657.79	205.07	14,826.68	8,186.58		23,013.25	
	Components (%)									0.7%	98.5%	0.9%	64.4%	35.6%		100.0%	
	Unit Rate	t								150.31	22,644.74	204.95	14,818.14	8,181.86		23,000.00	
Miscellaneous covers the costs for minor tools, cleaning, etc.																	

310(1) Bituminous Concrete Surface Course, hot laid				Unit: 10.00 t												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.03	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	17.28	0.00	0.00	0.00	17.28	17.28	
L019	Skilled Labor	md	0.18	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	73.80	0.00	0.00	0.00	73.80	73.80	
L020	Unskilled Labor	md	0.18	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	57.60	0.00	0.00	0.00	57.60	57.60	
R0802-047	Asphalt Paver/Finisher, 4.7m	hr	0.28	3.2%	4.3%	92.5%	53.1%	46.9%	2,420.00	21.68	29.14	626.78	359.89	317.71	677.60	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	0.28	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	23.42	50.84	496.94	302.44	268.76	571.20	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	0.28	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	24.27	44.13	483.20	290.85	260.75	551.60	
M07021	Asphalt Mixture	t	11.20	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	28,000.00	0.00	18,200.00	9,800.00	28,000.00	Loss 12.0%
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	50.0%	50.0%		0.00	59.90	239.59	149.75	149.75	299.49	1.0%
	Total									218.05	28,184.00	1,846.52	19,302.92	10,945.65	30,248.57	
	Components (%)									0.7%	93.2%	6.1%	63.8%	36.2%	100.0%	
	Unit Rate	t								21.77	2,813.87	184.36	1,927.19	1,092.81	3,020.00	
Miscellaneous covers the cost for spraying equipment, heating fuel, formwork, etc.																
Asphalt Pavement Thickness = 50.000 mm Unit Weight = 2.35 t/m3																

310(2) Asphalt Mixture Wearing Course (t=50mm) for bridge pavement										Unit: 100.00 m2						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L002	Foreman	md	0.04	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	23.04	0.00	0.00	0.00	23.04	23.04	
L019	Skilled Labor	md	0.21	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	86.10	0.00	0.00	0.00	86.10	86.10	
L020	Unskilled Labor	md	0.21	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	67.20	0.00	0.00	0.00	67.20	67.20	
R0802-047	Asphalt Paver/Finisher, 4.7m	hr	0.33	3.2%	4.3%	92.5%	53.1%	46.9%	2,420.00	25.56	34.34	738.71	424.15	374.45	798.60	
R0305-106	Vibratory Tandem Smooth Drum 10.6t (Vibration Roller, tandem, 8~10t)	hr	0.33	4.1%	8.9%	87.0%	52.9%	47.1%	2,040.00	27.60	59.91	585.68	356.45	316.75	673.20	
R0304-016	Four Tamping Foot Wheels (Tire Roller) 16t	hr	0.33	4.4%	8.0%	87.6%	52.7%	47.3%	1,970.00	28.60	52.01	569.49	342.79	307.31	650.10	
M07012	Tack Coat	t	0.04	0.0%	100.0%	0.0%	65.0%	35.0%	22,635.00	0.00	905.40	0.00	588.51	316.89	905.40	
M07021	Asphalt Mixture	t	13.16	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	32,900.00	0.00	21,385.00	11,515.00	32,900.00	Loss 12.0%
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	50.0%	50.0%		0.00	72.21	288.83	180.52	180.52	361.04	1.0%
Total										258.10	34,023.87	2,182.71	23,277.42	13,187.26	36,464.68	
Components (%)										0.7%	93.3%	6.0%	63.8%	36.2%	100.0%	
Unit Rate			m2							2.58	340.57	21.85	233.00	132.00	365.00	
Miscellaneous covers the cost for spraying equipment, heating fuel, formwork, etc.																
Asphalt Pavement Thickness = 50 mm Unit Weight = 2.35 t/m3																
Tack Coat = 0.428 ltr/m2 Unit Weight = 1.00 t/m3																

## 310(3) Waterproofing Layer for Pampanga Deck Slab

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L019	Skilled Labor	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	492.00	0.00	0.00	0.00	492.00	492.00	
L020	Unskilled Labor	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	224.00	0.00	0.00	0.00	224.00	224.00	
M07051	Rubberized Asphalt Agent	kg	52.50	0.0%	100.0%	0.0%	65.0%	35.0%	24.40	0.00	1,281.00	0.00	832.65	448.35	1,281.00	Loss 5.0%
M07052	Rubberized Asphalt	kg	42.00	0.0%	100.0%	0.0%	65.0%	35.0%	18.70	0.00	785.40	0.00	510.51	274.89	785.40	Loss 5.0%
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	50.0%	50.0%		0.00	15.35	138.17	76.76	153.52		5.0%
	Total									1,004.00	2,081.75	138.17	1,419.92	1,804.00	3,223.92	
	Components (%)									31.1%	64.6%	4.3%		56.0%	100.0%	
	Unit Rate	m2								10.03	20.79	1.38	14.18	18.02	32.20	

Miscellaneous covers the costs for asphalt kettle, generator, air compressor, sponge roller, brushes, minor tools, etc.

## 311(1)a PCC Pavement (Plain), t=280mm

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	230.40	0.00	0.00	0.00	230.40	230.40	
L019	Skilled Labor	md	1.67	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	684.70	0.00	0.00	0.00	684.70	684.70	
L020	Unskilled Labor	md	6.71	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,147.20	0.00	0.00	0.00	2,147.20	2,147.20	
W0211	Concrete (for PCC Pavement, 24.1MPa, max agg. 50mm)	m3	28.84	2.7%	79.4%	17.9%	57.2%	42.8%	1,490.00	1,146.22	34,136.15	7,689.23	24,579.51	18,392.09	42,971.60	Loss 3.0%
M07103	Joint Filler (bituminous t=18mm)	m2	0.83	0.0%	100.0%	0.0%	60.0%	40.0%	514.00	0.00	426.62	0.00	255.97	170.65	426.62	
M07113	Joint Sealant (18x18mm)	m	3.18	0.0%	100.0%	0.0%	60.0%	40.0%	103.00	0.00	327.54	0.00	196.52	131.02	327.54	
M07117	Joint Sealant (liquid type)	kg	10.20	0.0%	100.0%	0.0%	60.0%	40.0%	96.20	0.00	981.24	0.00	588.74	392.50	981.24	
M02011	Structural Steel (Round Bar, SS400)	kg	94.49	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	2,059.88	0.00	1,441.92	617.96	2,059.88	
M08700	Steel Gas Pipe, φ20	m	1.42	0.0%	100.0%	0.0%	60.0%	40.0%	76.70	0.00	108.91	0.00	65.35	43.56	108.91	
Q0705-075	Concrete Spreader, 3~7.5m	hr	1.15	2.2%	1.5%	96.2%	52.9%	47.1%	3,260.00	83.80	57.01	3,608.19	1,982.93	1,766.07	3,749.00	
R0706-090	Concrete Paver/Finisher	hr	1.15	5.1%	9.6%	85.3%	52.6%	47.4%	1,400.00	82.11	154.56	1,373.33	847.44	762.56	1,610.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.71	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	127.36	154.65	1,992.29	1,181.76	1,092.54	2,274.30	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	50.0%	50.0%		0.00	1,036.29	2,418.00	1,727.14	1,727.14	3,454.28	6.0%
	Total									4,501.80	39,442.84	17,081.03	32,867.29	28,158.38	61,025.67	
	Components (%)									7.4%	64.6%	28.0%		53.9%	46.1%	100.0%
	Unit Rate	m2								45.00	394.26	170.74	328.53	281.47	610.00	

Miscellaneous covers the cost for formwork, truck, concrete cutter, curing materials, chairs, biding wires, etc.  
Thickness = 0.280 m

## 311(1)b PCC Pavement (Plain), t=250mm

Unit: 100.000 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	230.40	0.00	0.00	0.00	230.40	230.40	
L019	Skilled Labor	md	1.67	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	684.70	0.00	0.00	0.00	684.70	684.70	
L020	Unskilled Labor	md	6.71	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,147.20	0.00	0.00	0.00	2,147.20	2,147.20	
W0211	Concrete (for PCC Pavement, 24.1MPa, max agg. 50mm)	m3	26.00	2.7%	79.4%	17.9%	57.2%	42.8%	1,490.00	1,033.35	30,774.61	6,932.04	22,159.06	16,580.94	38,740.00	Loss 4.0%
M07103	Joint Filler (bituminous t=18mm)	m2	0.74	0.0%	100.0%	0.0%	60.0%	40.0%	514.00	0.00	380.36	0.00	228.22	152.14	380.36	
M07113	Joint Sealant (18x18mm)	m	3.18	0.0%	100.0%	0.0%	60.0%	40.0%	103.00	0.00	327.54	0.00	196.52	131.02	327.54	
M07117	Joint Sealant (liquid type)	kg	10.20	0.0%	100.0%	0.0%	60.0%	40.0%	96.20	0.00	981.24	0.00	588.74	392.50	981.24	
M02011	Structural Steel (Round Bar, SS400)	kg	94.49	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	2,059.88	0.00	1,441.92	617.96	2,059.88	
M08700	Steel Gas Pipe, φ20	m	1.42	0.0%	100.0%	0.0%	60.0%	40.0%	76.70	0.00	108.91	0.00	65.35	43.56	108.91	
Q0705-075	Concrete Spreader, 3~7.5m	hr	1.15	2.2%	1.5%	96.2%	52.9%	47.1%	3,260.00	83.80	57.01	3,608.19	1,982.93	1,766.07	3,749.00	
R0706-090	Concrete Paver/Finisher	hr	1.15	5.1%	9.6%	85.3%	52.6%	47.4%	1,400.00	82.11	154.56	1,373.33	847.44	762.56	1,610.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.71	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	127.36	154.65	1,992.29	1,181.76	1,092.54	2,274.30	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	50.0%	50.0%		0.00	959.28	2,238.33	1,598.81	1,598.81	3,197.61	6.0%
	Total									4,388.93	35,958.05	16,144.17	30,290.75	26,200.40	56,491.14	
	Components (%)									7.8%	63.7%	28.6%		53.6%	46.4%	100.0%
	Unit Rate	m2								43.90	359.64	161.47	302.95	262.05	565.00	

Miscellaneous covers the cost for formwork, truck, concrete cutter, curing materials, chairs, biding wires, etc.  
Thickness = 0.250 m



## 311(1)c PCC Pavement (Plain), t=230mm

311(1)c PCC Pavement (Plain), t=230mm			Unit: 100.00 m <sup>2</sup>													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	230.40	0.00	0.00	0.00	230.40	230.40	Loss 4.0%
L019	Skilled Labor	md	1.67	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	684.70	0.00	0.00	0.00	684.70	684.70	
L020	Unskilled Labor	md	6.71	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,147.20	0.00	0.00	0.00	2,147.20	2,147.20	
W0211	Concrete (for PCC Pavement, 24.1MPa, max agg. 50mm)	m3	23.92	2.7%	79.4%	17.9%	57.2%	42.8%	1,490.00	950.68	28,312.64	6,377.47	20,386.33	15,254.47	35,640.80	
W07103	Joint Filler (bituminous t=18mm)	m2	0.67	0.0%	100.0%	0.0%	60.0%	40.0%	514.00	0.00	344.38	0.00	206.63	137.75	344.38	6.0%
W07113	Joint Sealant (18x18mm)	m	3.18	0.0%	100.0%	0.0%	60.0%	40.0%	103.00	0.00	327.54	0.00	196.52	131.02	327.54	
W07117	Joint Sealant (liquid type)	kg	10.20	0.0%	100.0%	0.0%	60.0%	40.0%	96.20	0.00	981.24	0.00	588.74	392.50	981.24	
W02011	Structural Steel (Round Bar, SS400)	kg	97.02	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	2,115.04	0.00	1,480.53	634.51	2,115.04	
W08700	Steel Gas Pipe, φ20	m	1.42	0.0%	100.0%	0.0%	60.0%	40.0%	76.70	0.00	108.91	0.00	65.35	43.56	108.91	6.0%
Q0705-075	Concrete Spreader, 3~7.5m	hr	1.15	2.2%	1.5%	96.2%	52.9%	47.1%	3,260.00	83.80	57.01	3,608.19	1,982.93	1,766.07	3,749.00	
R0706-090	Concrete Paver/Finisher	hr	1.15	5.1%	9.6%	85.3%	52.6%	47.4%	1,400.00	82.11	154.56	1,373.33	847.44	762.56	1,610.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.71	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	127.36	154.65	1,992.29	1,181.76	1,092.54	2,274.30	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	50.0%	50.0%		0.00	903.84	2,108.97	1,506.41	1,506.41	3,012.81	
Total										4,306.26	33,459.82	15,460.25	28,442.65	24,783.68	53,226.32	
Components (%)										8.1%	62.9%	29.0%	53.4%	46.6%	100.0%	
Unit Rate			m2							43.04	334.43	154.53	284.29	247.71	532.00	
Miscellaneous covers the cost for formwork, truck, concrete cutter, curing materials, chairs, bidding wires, etc.																
Thickness = 0.230 m																

## 311(1)d PCC Pavement (Plain), t=180mm

S11(1)d PCC Pavement (Plain), t=180mm			Unit: 100.00 m <sup>2</sup>													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	230.40	0.00	0.00	0.00	230.40	230.40	Loss 4.0%
L019	Skilled Labor	md	1.67	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	684.70	0.00	0.00	0.00	684.70	684.70	
L020	Unskilled Labor	md	6.71	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,147.20	0.00	0.00	0.00	2,147.20	2,147.20	
W0211	Concrete (for PCC Pavement, 24. MPa, max agg. 50mm)	m <sup>3</sup>	18.72	2.7%	79.4%	17.9%	57.2%	42.8%	1,490.00	744.01	22,157.72	4,991.07	15,954.52	11,938.28	27,892.80	
W07103	Joint Filler (bituminous t=18mm)	m <sup>2</sup>	0.51	0.0%	100.0%	0.0%	60.0%	40.0%	514.00	0.00	262.14	0.00	157.28	104.86	262.14	6.0%
W07113	Joint Sealant (18x18mm)	m	3.18	0.0%	100.0%	0.0%	60.0%	40.0%	103.00	0.00	327.54	0.00	196.52	131.02	327.54	
W07117	Joint Sealant (liquid type)	kg	10.20	0.0%	100.0%	0.0%	60.0%	40.0%	96.20	0.00	981.24	0.00	588.74	392.50	981.24	
W02011	Structural Steel (Round Bar, SS400)	kg	114.78	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	2,502.20	0.00	1,751.54	750.66	2,502.20	
W08700	Steel Gas Pipe, φ20	m	1.42	0.0%	100.0%	0.0%	60.0%	40.0%	76.70	0.00	108.91	0.00	65.35	43.56	108.91	6.0%
Q0705-075	Concrete Spreader, 3~7.5m	hr	1.15	2.2%	1.5%	96.2%	52.9%	47.1%	3,260.00	83.80	57.01	3,608.19	1,982.93	1,766.07	3,749.00	
R0706-090	Concrete Paver/Finisher	hr	1.15	5.1%	9.6%	85.3%	52.6%	47.4%	1,400.00	82.11	154.56	1,373.33	847.44	762.56	1,610.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.71	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	127.36	154.65	1,992.29	1,181.76	1,092.54	2,274.30	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	50.0%	50.0%		0.00	769.87	1,796.36	1,283.11	1,283.11	2,566.23	
Total										4,099.59	27,475.84	13,761.23	24,009.21	21,327.45	45,336.66	
Components (%)										9.0%	60.6%	30.4%	53.0%	47.0%	100.0%	
Unit Rate		m <sup>2</sup>								40.96	274.54	137.50	239.90	213.10	453.00	
Miscellaneous covers the cost for formwork, truck, concrete cutter, curing materials, chairs, biding wires, etc.																
Thickness = 0.180 m																

## SPL 311(1)e PCC Pavement (Lean Mix Concrete)

SPL 311(t)e PCC Pavement (Lean Mix Concrete)										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	190.08	0.00	0.00	0.00	190.08	190.08	Loss 4.0%
L019	Skilled Labor	md	1.39	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	569.90	0.00	0.00	0.00	569.90	569.90	
L020	Unskilled Labor	md	5.59	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,788.80	0.00	0.00	0.00	1,788.80	1,788.80	
W0202	Concrete (Class B, 17MPa, max agg. 50mm)	m3	10.40	2.9%	77.5%	19.6%	56.2%	43.8%	1,360.00	414.80	10,955.35	2,773.85	7,949.71	6,194.29	14,144.00	
Q0705-075	Concrete Spreader, 3~7.5m	hr	0.96	2.2%	1.5%	96.2%	52.9%	47.1%	3,260.00	69.96	47.59	3,012.05	1,655.32	1,474.28	3,129.60	6.0%
R0706-090	Concrete Paver/Finisher	hr	0.96	5.1%	9.6%	85.3%	52.6%	47.4%	1,400.00	68.54	129.02	1,146.43	707.43	636.57	1,344.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.43	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	106.51	129.33	1,666.06	988.26	913.64	1,901.90	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	50.0%	50.0%		0.00	415.23	968.87	692.05	692.05	1,384.10	
Total										3,208.59	11,676.53	9,567.27	11,992.76	12,459.61	24,452.38	
Components (%)										13.1%	47.8%	39.1%	49.0%	51.0%	100.0%	
Unit Rate		m3								321.48	1,169.93	958.59	1,201.61	1,248.39	2,450.00	
Miscellaneous covers the cost for joints, formwork, truck, concrete cutter, curing materials, chairs, bidding wires, etc.																
Average Thickness = 0.120 m																

## SPL 311(2) PCC Pavement (Reinforced), t=300mm (Approach Slab)

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	33.66	2.5%	61.5%	16.1%	56.8%	43.2%	1,590.00	1,314.02	43,612.40	8,592.97	30,403.23	23,116.17	53,519.40	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	33.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	1,342.65	16.69	7,154.65	3,834.22	4,679.78	8,514.00	
W0237	Concrete Curing (reinforced concrete)	m3	33.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	105.65	10.78	25.14	19.76	121.81	141.57	
W0241	Formwork (reinforced concrete H(4m)	m2	18.62	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,522.61	1,670.98	33.15	122.50	4,104.24	4,226.74	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	1,444.40	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	5,209.65	25,954.28	2,635.03	18,200.92	15,598.04	33,798.96	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	3,805.50	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	13,687.68	72,404.28	7,142.79	50,664.99	42,569.76	93,234.75	
W07102	Joint Filler (bituminous t=12mm)	m2	9.27	0.0%	100.0%	0.0%	60.0%	40.0%	343.00	0.00	3,179.61	0.00	1,907.77	1,271.84	3,179.61	
W07112	Joint Sealant (12x12mm)	m	32.20	0.0%	100.0%	0.0%	60.0%	40.0%	75.20	0.00	2,421.44	0.00	1,452.86	968.58	2,421.44	
W02011	Structural Steel (Round Bar, SS400)	kg	118.89	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	2,591.80	0.00	1,814.26	777.54	2,591.80	
	Miscellaneous	LS	1.00	10.0%	20.0%	70.0%	50.0%	50.0%		403.26	806.51	2,822.80	2,016.28	2,016.28	4,032.57	2.0%
	Total									24,585.53	152,668.77	28,406.54	110,436.79	95,224.05	205,660.84	
	Components (%)									12.0%	74.2%	13.8%	53.7%	46.3%	100.0%	
	Unit Rate	m2								246.26	1,529.21	284.53	1,106.19	953.81	2,060.00	

Miscellaneous covers the cost for surface finishing, minor tools, etc.  
Thickness = 0.300 m

## Part F Bridge Construction

## 400(3)a Steel H Piles (450mmx260kg/m), furnished

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	115.20	0.00	0.00	0.00	115.20	115.20	
L009	Welder	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	509.00	0.00	0.00	0.00	509.00	509.00	
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
W02015	Structural Steel (Plates, SS400)	kg	25,396.80	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	513,015.36	0.00	359,110.75	153,904.61	513,015.36	Loss 4.0%
R0901-025	Welding Machine 250A	day	1.00	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	234.02	353.98	344.48	243.52	588.00	
R1001-150	Generator 101-150 kW	day	1.00	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,894.42	1,725.58	2,164.17	1,445.83	3,610.00	
R0402-020	Truck Crane, Hydraulic 16-20t	hr	0.61	7.0%	7.7%	85.3%	51.5%	48.5%	1,070.00	45.69	50.26	556.75	335.83	316.87	652.70	
R0604-020	Trailer 20t	hr	5.49	3.9%	10.7%	85.4%	53.3%	46.7%	1,670.00	357.56	981.01	7,829.73	4,887.27	4,281.03	9,168.30	
	Miscellaneous	LS	1.00	10.0%	20.0%	70.0%	50.0%	50.0%		13,201.71	26,403.43	92,412.00	66,008.57	66,008.57	132,017.14	25.0%
	Total									14,639.17	542,568.50	102,878.04	432,851.08	227,234.62	660,085.70	
	Components (%)									2.2%	82.2%	15.6%	65.6%	34.4%	100.0%	
	Unit Rate	m								146.37	5,424.98	1,028.65	4,327.95	2,272.05	6,600.00	

Miscellaneous covers the cost for fabricator's overhead, facilities, etc.

## 400(4)a Precast RC Concrete Pile (400mm x 400mm), furnished

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0206	Concrete (Class AA2, 28MPa, max agg. 20mm)	m3	15.94	2.1%	84.3%	13.6%	57.9%	42.1%	1,820.00	609.00	24,450.68	3,951.12	16,811.53	12,199.27	29,010.80	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	15.63	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	635.93	7.91	3,388.70	1,816.03	2,216.51	4,032.54	
W0237	Concrete Curing (reinforced concrete)	m3	15.63	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	50.04	5.10	11.91	9.36	57.69	67.05	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	4,696.70	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	16,940.02	84,394.52	8,568.23	59,183.22	50,719.56	109,902.78	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	0.59	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	43.94	53.36	687.40	407.74	376.96	784.70	
R0604-020	Trailer 20t	hr	1.21	3.9%	10.7%	85.4%	53.3%	46.7%	1,670.00	78.81	216.21	1,725.68	1,077.16	943.54	2,020.70	
	Miscellaneous	LS	1.00	5.0%	25.0%	70.0%	50.0%	50.0%		583.27	2,916.37	8,165.84	5,832.74	5,832.74	11,665.49	8.0%
	Total									18,941.02	112,044.15	26,498.88	85,137.78	72,346.28	157,484.06	
	Components (%)									12.0%	71.1%	16.8%	54.1%	45.9%	100.0%	
	Unit Rate	m								188.83	1,117.00	264.17	848.76	721.24	1,570.00	

Miscellaneous covers the cost for mould, forms, maintenance of fabrication yard, minor tools and devices, etc.

## 400(4)b Precast RC Concrete Pile (450mmx450mm) furnished

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0206	Concrete (Class AA2, 28MPa, max agg. 20mm)	m3	20.04	2.1%	84.3%	13.6%	57.9%	42.1%	1,820.00	765.65	30,739.75	4,967.41	21,135.70	15,337.10	36,472.80	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	19.65	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	799.49	9.94	4,260.27	2,283.10	2,786.60	5,069.70	
W0237	Concrete Curing (reinforced concrete)	m3	19.65	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	62.91	6.42	14.97	11.76	72.54	84.30	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	5,985.30	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	21,587.74	107,549.24	10,919.04	75,420.90	64,635.12	140,056.02	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	0.74	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	55.12	66.93	862.16	511.41	472.79	984.20	
R0604-020	Trailer 20t	hr	1.52	3.9%	10.7%	85.4%	53.3%	46.7%	1,670.00	99.00	271.61	2,167.79	1,353.12	1,185.28	2,538.40	
	Miscellaneous	LS	1.00	5.0%	25.0%	70.0%	50.0%	50.0%		740.82	3,704.11	10,371.50	7,408.22	7,408.22	14,816.43	8.0%
	Total									24,110.72	142,347.99	33,563.14	108,124.21	91,897.64	200,021.85	
	Components (%)									12.1%	71.2%	16.8%	54.1%	45.9%	100.0%	
	Unit Rate	m								241.08	1,423.32	335.59	1,081.12	918.88	2,000.00	

Miscellaneous covers the cost for mould, forms, maintenance of fabrication yard, minor tools and devices, etc.

## 400(10)a Steel H Piles (450mmx260kg/m), driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PF)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L009	Welder	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	712.60	0.00	0.00	0.00	712.60	712.60	
L019	Skilled Labor	md	2.80	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,148.00	0.00	0.00	0.00	1,148.00	1,148.00	
L020	Unskilled Labor	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	448.00	0.00	0.00	0.00	448.00	448.00	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	8.80	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	14,696.00	8,173.10	6,522.90	14,696.00	
R0401-035	Crawler Crane, 31-35t	hr	8.80	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	650.50	1,448.83	12,684.67	7,822.46	6,961.54	14,784.00	
M02001	Reinforcing Bars, Grade 40	kg	938.40	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	15,014.40	0.00	9,759.36	5,255.04	15,014.40	Loss 2.0%
R0402-025	Truck Crane, Hydraulic 21-25t	hr	5.28	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	393.25	477.52	6,151.62	3,648.95	3,373.45	7,022.40	
R0901-050	Welding Machine 500A	day	1.40	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	1,243.03	814.97	1,247.90	810.10	2,058.00	
R1001-150	Generator 101-150 kW	day	1.40	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	2,638.19	2,415.81	3,029.84	2,024.16	5,054.00	
	Miscellaneous	LS	1.00	5.0%	20.0%	75.0%	50.0%	50.0%		30.87	123.49	463.08	308.72	308.72	617.44	1.0%
	Total									4,189.62	20,945.46	37,226.15	33,990.33	28,370.91	62,361.24	
	Components (%)									6.7%	33.6%	59.7%	54.5%	45.5%	100.0%	
	Unit Rate	m								41.92	209.58	372.49	340.11	283.89	624.00	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

$T_c = (T_b + T_w + T_p) / F$	=	26.39 min	L : Pile Driving Length	5.00 m
Tc: Cycle time per pile	=	5.75 min	D : Pile size	0.45 m
Tb: Driving Time = $K \cdot \alpha \cdot L \cdot \beta$	=	0.00 min	n : number of joint	0.00
Tw: Welding Time = $17 \cdot n$	=	18.00 min	f1: Obstruction factor	0.00
Tp: Preparation time = $6 \cdot (n+1) + 12$	=	0.90	f2: Space factor	0.00
F : Efficiency = $0.9 + (f1 + f2 + f3)$	=	1.00	f3: Volume factor	0.00
K : Pile Coefficient	=	1.15	T : Daily Operation hour	6.29 hr
$\alpha$ : Soil factor	=	1.00	Pile head re-bars	46.00 kg/each
$\beta$ : Hammer factor	=			

## 400(13)a Precast Concrete Piles (400mm x 400mm), driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.98	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	564.48	0.00	0.00	0.00	564.48	564.48	
L009	Welder	md	0.98	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	498.82	0.00	0.00	0.00	498.82	498.82	
L019	Skilled Labor	md	1.96	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	803.60	0.00	0.00	0.00	803.60	803.60	
L020	Unskilled Labor	md	0.98	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	313.60	0.00	0.00	0.00	313.60	313.60	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	6.17	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	10,303.90	5,730.45	4,573.45	10,303.90	
R0401-035	Crawler Crane, 31-35t	hr	6.17	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	456.09	1,015.83	8,893.68	5,484.61	4,880.99	10,365.60	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	3.70	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	275.58	334.63	4,310.80	2,557.03	2,363.97	4,921.00	
R0901-050	Welding Machine 500A	day	0.98	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	870.12	570.48	873.53	567.07	1,440.60	
R1001-150	Generator 101-150 kW	day	0.98	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,846.73	1,691.07	2,120.89	1,416.91	3,537.80	
	Miscellaneous	LS	1.00	5.0%	20.0%	75.0%	55.0%	45.0%		16.37	65.50	245.62	180.12	147.37	327.49	1.0%
	Total									2,928.54	4,132.81	26,015.55	16,946.64	16,130.25	33,076.89	
	Components (%)									8.9%	12.5%	78.7%	51.2%	48.8%	100.0%	
	Unit Rate	m								29.31	41.36	260.34	169.58	161.42	331.00	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

$$T_c = (T_b + T_w + T_p) / F$$

$$T_c: \text{Cycle time per pile} = 43.10 \text{ min}$$

$$T_b: \text{Driving Time} = K \cdot \alpha \cdot L \cdot \beta = 20.79 \text{ min}$$

$$T_w: \text{Welding Time} = 17 \cdot n = 0.00 \text{ min}$$

$$T_p: \text{Preparation time} = 6 \cdot (n+1) + 12 = 18.00 \text{ min}$$

$$F: \text{Efficiency} = 0.9 + (f_1 + f_2 + f_3) = 0.90$$

$$K: \text{Pile Coefficient} = 1.60$$

$$\alpha: \text{Soil factor} = 1.15$$

$$\beta: \text{Hammer factor} = 0.97$$

$$L: \text{Pile Driving Length} = 11.65 \text{ m}$$

$$D: \text{Pile size} = 0.40 \text{ m}$$

$$n: \text{number of joint} = 0.00$$

$$f_1: \text{Obstruction factor} = 0.00$$

$$f_2: \text{Space factor} = 0.00$$

$$f_3: \text{Volume factor} = 0.00$$

$$T: \text{Daily Operation hour} = 6.29 \text{ hr}$$

## 400(13)b Precast Concrete Piles (450mm x 450mm), driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.04	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	599.04	0.00	0.00	0.00	599.04	599.04	
L009	Welder	md	1.04	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	529.36	0.00	0.00	0.00	529.36	529.36	
L019	Skilled Labor	md	2.08	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	852.80	0.00	0.00	0.00	852.80	852.80	
L020	Unskilled Labor	md	1.04	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	332.80	0.00	0.00	0.00	332.80	332.80	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	6.54	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	10,921.80	6,074.10	4,847.70	10,921.80	
R0401-035	Crawler Crane, 31-35t	hr	6.54	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	483.44	1,076.75	9,427.02	5,813.51	5,173.69	10,987.20	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	3.92	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	291.96	354.52	4,567.11	2,709.07	2,504.53	5,213.60	
R0901-050	Welding Machine 500A	day	1.04	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	923.40	605.40	927.01	601.79	1,528.80	
R1001-150	Generator 101-150 kW	day	1.04	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,959.80	1,794.60	2,250.74	1,503.66	3,754.40	
	Miscellaneous	LS	1.00	5.0%	20.0%	75.0%	55.0%	45.0%		17.36	69.44	260.40	190.96	156.24	347.20	1.0%
	Total									3,106.76	4,383.90	27,576.34	17,965.39	17,101.61	35,067.00	
	Components (%)									8.9%	12.5%	78.6%	51.2%	48.8%	100.0%	
	Unit Rate	m								31.10	43.88	276.02	179.82	171.18	351.00	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

$$T_c = (T_b + T_w + T_p) / F$$

$$T_c: \text{Cycle time per pile} = 41.78 \text{ min}$$

$$T_b: \text{Driving Time} = K \cdot \alpha \cdot L \cdot \beta = 19.60 \text{ min}$$

$$T_w: \text{Welding Time} = 18 \cdot n = 0.00 \text{ min}$$

$$T_p: \text{Preparation time} = 6 \cdot (n+1) + 12 = 18.00 \text{ min}$$

$$F: \text{Efficiency} = 0.9 + (f_1 + f_2 + f_3) = 0.90$$

$$K: \text{Pile Coefficient} = 1.60$$

$$\alpha: \text{Soil factor} = 1.15$$

$$\beta: \text{Hammer factor} = 1.00$$

$$L: \text{Pile Driving Length} = 10.65 \text{ m}$$

$$D: \text{Pile size} = 0.45 \text{ m}$$

$$n: \text{number of joint} = 0.00$$

$$f_1: \text{Obstruction factor} = 0.00$$

$$f_2: \text{Space factor} = 0.00$$

$$f_3: \text{Volume factor} = 0.00$$

$$T: \text{Daily Operation hour} = 6.29 \text{ hr}$$

## 400(15)a Test Piles (400mm x 400mm), furnished &amp; driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.77	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	443.52	0.00	0.00	0.00	443.52	443.52	
L009	Welder	md	0.77	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	391.93	0.00	0.00	0.00	391.93	391.93	
L019	Skilled Labor	md	1.53	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	627.30	0.00	0.00	0.00	627.30	627.30	
L020	Unskilled Labor	md	0.77	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	246.40	0.00	0.00	0.00	246.40	246.40	
400(4)a	Precast RC Concrete Pile (400mm x 400mm), furnished	m	100.00	12.0%	71.1%	16.8%	54.1%	45.9%	1,570.00	18,882.80	111,699.77	26,417.43	84,876.09	72,123.91	157,000.00	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	4.82	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	8,049.40	4,476.63	3,572.77	8,049.40	
R0401-035	Crawler Crane, 31-35t	hr	4.82	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	356.29	793.56	6,947.74	4,284.58	3,813.02	8,097.60	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	2.89	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	215.25	261.37	3,367.08	1,997.25	1,846.45	3,843.70	
R0901-050	Welding Machine 500A	day	0.77	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	683.67	448.23	686.35	445.55	1,131.90	
R1001-150	Generator 101-150 kW	day	0.77	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,451.00	1,328.70	1,666.41	1,113.29	2,779.70	
	Miscellaneous	LS	1.00	10.0%	20.0%	70.0%	55.0%	45.0%		182.61	365.22	1,278.28	1,004.36	821.75	1,826.11	1.0%
	Total									21,346.10	115,254.60	47,836.86	98,991.66	85,445.90	184,437.56	
	Components (%)									11.6%	62.5%	25.9%	53.7%	46.3%	100.0%	
	Unit Rate	m								212.95	1,149.81	477.23	987.57	852.43	1,840.00	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

$$T_c = (T_b + T_w + T_p) / F$$

$$T_c: \text{Cycle time per pile} = 43.10 \text{ min}$$

$$T_b: \text{Driving Time} = K \cdot \alpha \cdot L_d \cdot \beta = 20.79 \text{ min}$$

$$T_w: \text{Welding Time} = 17 \cdot n = 0.00 \text{ min}$$

$$T_p: \text{Preparation time} = 6 \cdot (n+1) + 12 = 18.00 \text{ min}$$

$$F: \text{Efficiency} = 0.9 + (f_1 + f_2 + f_3) = 0.90$$

$$K: \text{Pile Coefficient} = 1.60$$

$$\alpha: \text{Soil factor} = 1.15$$

$$\beta: \text{Hammer factor} = 0.97$$

$$L_f: \text{Pile Furnished Length} = 14.90 \text{ m}$$

$$L_d: \text{Pile Driving Length} = 11.65 \text{ m}$$

$$D: \text{Pile size} = 0.40 \text{ m}$$

$$n: \text{number of joint} = 0.00$$

$$f_1: \text{Obstruction factor} = 0.00$$

$$f_2: \text{Space factor} = 0.00$$

$$f_3: \text{Volume factor} = 0.00$$

$$T: \text{Daily Operation hour} = 6.29 \text{ hr}$$

## 400(15)b Test Piles (450mm x 450mm), furnished &amp; driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L009	Welder	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	407.20	0.00	0.00	0.00	407.20	407.20	
L019	Skilled Labor	md	1.59	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	651.90	0.00	0.00	0.00	651.90	651.90	
L020	Unskilled Labor	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	256.00	0.00	0.00	0.00	256.00	256.00	
400(4)b	Precast RC Concrete Pile (450mmx450mm) furnished	m	100.00	12.1%	71.2%	16.8%	54.1%	45.9%	2,000.00	24,108.08	142,332.44	33,559.48	108,112.40	91,887.60	200,000.00	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	5.01	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	8,366.70	4,653.09	3,713.61	8,366.70	
R0401-035	Crawler Crane, 31-35t	hr	5.01	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	370.34	824.85	7,221.61	4,453.47	3,963.33	8,416.80	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	3.01	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	224.18	272.22	3,506.89	2,080.18	1,923.12	4,003.30	
R0901-050	Welding Machine 500A	day	0.80	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	710.39	465.70	713.09	462.91	1,176.00	
R1001-150	Generator 101-150 kW	day	0.80	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,507.54	1,380.46	1,731.34	1,156.66	2,888.00	
	Miscellaneous	LS	1.00	10.0%	20.0%	70.0%	55.0%	45.0%		226.63	453.25	1,586.39	1,246.45	1,019.82	2,266.27	1.0%
	Total									26,705.14	146,100.60	56,087.23	122,990.01	105,902.96	228,892.97	
	Components (%)									11.7%	63.8%	24.5%	53.7%	46.3%	100.0%	
	Unit Rate	m								267.18	1,461.69	561.13	1,230.48	1,059.52	2,290.00	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

$$T_c = (T_b + T_w + T_p) / F$$

$$T_c: \text{Cycle time per pile} = 41.78 \text{ min}$$

$$T_b: \text{Driving Time} = K \cdot \alpha \cdot L_d \cdot \beta = 19.60 \text{ min}$$

$$T_w: \text{Welding Time} = 18 \cdot n = 0.00 \text{ min}$$

$$T_p: \text{Preparation time} = 6 \cdot (n+1) + 12 = 18.00 \text{ min}$$

$$F: \text{Efficiency} = 0.9 + (f_1 + f_2 + f_3) = 0.90$$

$$K: \text{Pile Coefficient} = 1.60$$

$$\alpha: \text{Soil factor} = 1.15$$

$$\beta: \text{Hammer factor} = 1.00$$

$$L_f: \text{Pile Furnished Length} = 13.90 \text{ m}$$

$$L_d: \text{Pile Driving Length} = 10.65 \text{ m}$$

$$D: \text{Pile size} = 0.45 \text{ m}$$

$$n: \text{number of joint} = 0.00$$

$$f_1: \text{Obstruction factor} = 0.00$$

$$f_2: \text{Space factor} = 0.00$$

$$f_3: \text{Volume factor} = 0.00$$

$$T: \text{Daily Operation hour} = 6.29 \text{ hr}$$

## 400(15)c Test Piles (Steel H Piles 450mmx260kg/m), furnished &amp; driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.99	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	570.24	0.00	0.00	0.00	570.24	570.24	
L009	Welder	md	0.99	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	503.91	0.00	0.00	0.00	503.91	503.91	
L019	Skilled Labor	md	1.98	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	811.80	0.00	0.00	0.00	811.80	811.80	
L020	Unskilled Labor	md	0.99	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	316.80	0.00	0.00	0.00	316.80	316.80	
400(3)a	Steel H Piles (450mmx260kg/m), furnished	m	100.00	2.2%	82.2%	15.6%	65.6%	34.4%	6,600.00	14,637.27	542,498.06	102,864.68	432,794.88	227,205.12	660,000.00	
R0501-025	Diesel Hammer w/o Crane, 2.5t	hr	6.24	0.0%	0.0%	100.0%	55.6%	44.4%	1,670.00	0.00	0.00	10,420.80	5,795.47	4,625.33	10,420.80	
R0401-035	Crawler Crane, 31-35t	hr	6.24	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	461.26	1,027.35	8,994.59	5,546.84	4,936.36	10,483.20	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	3.74	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	278.56	338.25	4,357.40	2,584.67	2,389.53	4,974.20	
R0901-050	Welding Machine 500A	day	0.99	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	879.00	576.30	882.45	572.85	1,455.30	
R1001-150	Generator 101-150 kW	day	0.99	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	1,865.58	1,708.32	2,142.53	1,431.37	3,573.90	
	Miscellaneous	LS	1.00	10.0%	20.0%	70.0%	55.0%	45.0%		693.11	1,386.22	4,851.77	3,812.11	3,119.00	6,931.10	1.0%
	Total									18,272.94	547,994.45	133,773.86	453,558.94	246,482.31	700,041.25	
	Components (%)									2.6%	78.3%	19.1%	64.8%	35.2%	100.0%	
	Unit Rate	m								182.7	5,479.6	1,337.7	4,535.3	2,464.7	7,000.0	

Miscellaneous covers the cost for welding rods, scaffolding, lubricant, etc.

Tc = (Tb + Tw + Tp) / F		Lf: Pile Furnished Length	7.00 m
Tc: Cycle time per pile	= 26.20 min	L: Pile Driving Length	5.00 m
Tb: Driving Time = K · α · L · β	= 5.58 min	D: Pile size	0.40 m
Tw: Welding Time = 18 · n	= 0.00 min	n: number of joint	0.00
Tp: Preparation time = 6 · (n+1) + 12	= 18.00 min	f1: Obstruction factor	0.00
F: Efficiency = 0.9 + (f1 + f2 + f3)	= 0.90	f2: Space factor	0.00
K: Pile Coefficient	= 1.00	f3: Volume factor	0.00
α: Soil factor	= 1.15	T: Daily Operation hour	6.29 hr
β: Hammer factor	= 0.97		

## 400(16)a Cast-in-place Concrete Bored Piles φ1000mm

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	5.44	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	3,133.44	0.00	0.00	0.00	3,133.44	3,133.44	
L019	Skilled Labor	md	9.14	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	3,747.40	0.00	0.00	0.00	3,747.40	3,747.40	
L020	Unskilled Labor	md	8.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,688.00	0.00	0.00	0.00	2,688.00	2,688.00	
W0205	Concrete (Class AAI, 28MPa, max agg. 25mm)	m3	84.82	2.2%	83.1%	14.7%	57.8%	42.2%	1,740.00	3,300.94	122,599.36	21,686.50	85,258.37	62,328.43	147,586.80	Loss 8.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	78.54	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	3,195.51	39.73	17,028.08	9,125.44	11,137.88	20,263.32	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	157.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	566.27	2,821.12	286.42	1,978.36	1,695.44	3,673.80	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	21,049.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	75,709.36	400,482.90	39,508.23	280,238.44	235,462.06	515,700.50	
Q0513-120	All Casing Excavator, φ1200max	hr	34.35	1.0%	4.4%	94.6%	55.4%	44.6%	6,210.00	2,212.06	9,317.14	201,784.29	118,165.03	95,148.47	213,313.50	
R0401-035	Crawler Crane, 31-35t	hr	30.91	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	2,284.87	5,089.02	44,554.91	27,476.40	24,452.40	51,928.80	
Q0514-100	Hammer Grab, φ1000	day	5.28	0.0%	0.0%	100.0%	67.0%	33.0%	5,660.00	0.00	0.00	29,884.80	20,011.07	9,873.73	29,884.80	
Q0515-001	Hammer Crown, ≤ φ1200	day	5.28	0.0%	0.0%	100.0%	70.7%	29.3%	1,430.00	0.00	0.00	7,550.40	5,338.53	2,211.87	7,550.40	
Q0516-105	Casing Tube, φ1000, L=5m	day	116.07	0.0%	0.0%	100.0%	68.5%	31.5%	1,780.00	0.00	0.00	206,604.60	141,572.06	65,032.54	206,604.60	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	77.52	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	595.19	1,064.98	5,556.94	3,710.81	3,506.30	7,217.11	
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	55.0%	45.0%		1,819.94	10,919.63	23,659.20	20,019.33	16,379.45	36,398.77	3.0%
	Total									99,252.98	552,333.89	598,104.37	712,893.85	536,797.40	1,249,691.24	
	Components (%)									7.9%	44.2%	47.9%	57.0%	43.0%	100.0%	
	Unit Rate	m								992.78	5,524.70	5,982.52	7,130.70	5,369.30	12,500.00	

Miscellaneous covers the cost for stand pipe, tremay pipe, welder, vessel, slash tank, suction hose, water pump, etc.

Tc = Tso + Te		Excavator Operation Time TD1 = Tc - 16.4	556.44 min/pile
Tc: Cycle time per pile	= 573 min/pile	Crawler Crane Operation Time TD2 = 0.9xTD1	500.80 min/pile
Tso: Preparation Time = 46.8+11.3x12	= 348 min/pile	D: Pile diameter	1.000 m
Te: Excavation Time = ΣaixLi	= 225 min/pile	L: Pile Length	27.000 m
		L2: Excavation depth	26.650 m
		Steel Casing Length	29.650 m
		T: Daily Operation hour	6.50 hr

	ai	Li	aiLi
N < 20	8.30	23.650	196.30
N < 40	9.20	2.000	18.40
N > 40	10.20	1.000	10.20
Total		26.650	224.90

400(16)b Cast-in-place Concrete Bored Piles  $\phi$ 1200mm

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Total (PP)	Remarks
				Component (%)							Component (PP)							
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local				
L002	Foreman	md	5.62	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	3,237.12	0.00	0.00	0.00	3,237.12	3,237.12	Loss 8.0%		
L019	Skilled Labor	md	10.89	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	4,464.90	0.00	0.00	0.00	4,464.90	4,464.90			
L020	Unskilled Labor	md	9.84	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	3,148.80	0.00	0.00	0.00	3,148.80	3,148.80			
W0205	Concrete (Class AAL, 28MPa, max agg. 25mm)	m3	122.15	2.2%	83.1%	14.7%	57.8%	42.2%	1,740.00	4,753.71	176,556.38	31,230.91	122,781.30	89,759.70	212,541.00			
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	113.10	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	4,601.63	57.22	24,520.95	13,140.92	16,038.88	29,179.80			
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	226.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	815.14	4,060.97	412.29	2,847.83	2,440.57	5,288.40			
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	30,311.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	109,023.07	576,703.75	56,892.68	403,549.22	339,070.28	742,619.50			
Q0513-120	All Casing Excavator, $\phi$ 1200max	hr	35.12	1.0%	4.4%	94.6%	55.4%	44.6%	6,210.00	2,261.65	9,526.00	206,307.55	120,813.85	97,281.35	218,095.20			
R0401-035	Crawler Crane, 31-35t	hr	31.61	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	2,336.61	5,204.27	45,563.92	28,098.64	25,006.16	53,104.80			
Q0514-120	Hammer Grab, $\phi$ 1200	day	5.40	0.0%	0.0%	100.0%	67.0%	33.0%	5,910.00	0.00	0.00	31,914.00	21,369.83	10,544.17	31,914.00			
Q0515-001	Hammer Crown, $\leq \phi$ 1200	day	5.40	0.0%	0.0%	100.0%	70.7%	29.3%	1,430.00	0.00	0.00	7,722.00	5,459.86	2,262.14	7,722.00			
Q0516-125	Casing Tube, $\phi$ 1200, L=5m	day	128.82	0.0%	0.0%	100.0%	68.5%	31.5%	2,080.00	0.00	0.00	267,945.60	183,604.87	84,340.73	267,945.60			
W0111	Disposal of Surplus Soil (backhoe loading)	m3	111.01	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	852.32	1,525.07	7,957.64	5,313.95	5,021.08	10,335.03			
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	55.0%	45.0%		2,384.39	14,306.37	30,997.12	26,228.34	21,459.55	47,687.88	3.0%		
	Total									137,879.34	787,940.02	711,464.67	933,208.61	704,075.42	1,637,284.03			
	Components (%)									8.4%	48.1%	43.5%	57.0%	43.0%	100.0%			
	Unit Rate	m								1,381.08	7,892.47	7,126.45	9,347.57	7,052.43	16,400.00			

Miscellaneous covers the cost for stand pipe, tremmy pipe, welder, vessel, slash tank, suction hose, water pump, etc.

Tc = Iso + Te

Tc: Cycle time per pile

Iso: Preparation Time = 46.8+11.3xL2

Te: Excavation Time =  $\sum a_i x L_i$ 

= 416.78 min/pile

= 257.55 min/pile

= 159.24 min/pile

	ai	Li	aiLi
N < 20	8.30	15.050	124.92
N < 40	9.20	2.400	22.08
N > 40	10.20	1.200	12.24
Total		18.650	159.24

Excavator Operation Time TD1 = Tc - 16.4

Crawler Crane Operation Time TD2 = 0.9xTD1

D : Pile diameter

L : Pile Length

L2: Excavation depth

Steel Casing Length

T : Daily Operation hour

400.38 min/pile

360.34 min/pile

1.200 m

19.000 m

18.650 m

22.650 m

6.50 hr

Item No.	Description	Unit	Quantity	Unit Rate						Amount						Remarks
				Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	5.61	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	3,231.36	0.00	0.00	0.00	3,231.36	3,231.36	
L019	Skilled Labor	md	10.61	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	4,350.10	0.00	0.00	0.00	4,350.10	4,350.10	
L020	Unskilled Labor	md	9.61	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	3,075.20	0.00	0.00	0.00	3,075.20	3,075.20	
W0205	Concrete (Class AAI, 28MPa, max agg. 25mm)	m3	190.85	2.2%	83.1%	14.7%	57.8%	42.2%	1,740.00	7,427.31	275,855.80	48,795.89	191,836.35	140,242.65	332,079.00	Loss 8.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	176.71	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	7,189.70	89.39	38,312.09	20,531.66	25,059.52	45,591.18	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	353.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,273.20	6,343.02	643.98	4,448.16	3,812.04	8,260.20	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	47,358.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	170,337.98	901,043.72	88,889.31	630,506.54	529,764.46	1,160,271.00	
Q0513-150	All Casing Excavator, $\phi 1500\text{max}$	hr	35.09	0.7%	2.1%	97.2%	55.3%	44.7%	8,630.00	2,256.83	6,322.98	294,246.90	167,589.91	135,236.79	302,826.70	
R0401-035	Crawler Crane, 31-35t	hr	31.58	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	2,334.39	5,199.33	45,520.68	28,071.98	24,982.42	53,054.40	
Q0514-150	Hammer Grab, $\phi 1500$	day	5.40	0.0%	0.0%	100.0%	67.0%	33.0%	10,100.00	0.00	0.00	54,540.00	36,520.36	18,019.64	54,540.00	
Q0515-002	Hammer Crown, $> \phi 1200$	day	5.40	0.0%	0.0%	100.0%	70.7%	29.3%	1,920.00	0.00	0.00	10,368.00	7,330.72	3,037.28	10,368.00	
Q0516-155	Casing Tube, $\phi 1500$ , L=5m	day	133.07	0.0%	0.0%	100.0%	68.5%	31.5%	2,690.00	0.00	0.00	357,958.30	245,284.45	112,673.85	357,958.30	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	173.62	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	1,333.03	2,385.22	12,445.77	8,311.04	7,852.98	16,164.02	
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	55.0%	45.0%		3,527.65	21,165.93	45,859.50	38,804.20	31,748.89	70,553.08	3.0%
	Total									206,336.74	1,218,405.38	997,580.42	1,379,235.37	1,043,087.17	2,422,322.54	
	Components (%)									8.5%	50.3%	41.2%	56.9%	43.1%	100.0%	
	Unit Rate	m								2,061.39	12,172.37	9,966.24	13,779.13	10,420.87	24,200.00	

Miscellaneous covers the cost for stand pipe, tremay pipe, welder, vessel, slash tank, suction hose, water pump, etc.

Tc = Tso + Te

Tc: Cycle time per pile = 437.49 min/pile

Tso: Preparation Time = 46.8+11.3xL2 = 268.85 min/pile

Te: Excavation Time =  $\sum a_i L_i$  = 168.65 min/pile

Excavator Operation Time TD1 = Tc - 16.4

Crawler Crane Operation Time TD2 = 0.9xTD1

D: Pile diameter

L: Pile Length

L2: Excavation depth

Steel Casing Length

T: Daily Operation hour

421.09 min/pile

378.98 min/pile

1.500 m

20.000 m

19.650 m

24.650 m

6.50 hr

	ai	Li	aiLi
N < 20	8.30	15.150	125.75
N < 40	9.20	3.000	27.60
N > 40	10.20	1.500	15.30
Total		19.650	168.65



400(16)d Cast-in-place Concrete Bored Piles  $\phi$ 800mm

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	5.94	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	3,421.44	0.00	0.00	0.00	3,421.44	3,421.44	Loss 8.0%
L019	Skilled Labor	md	14.28	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	5,854.80	0.00	0.00	0.00	5,854.80	5,854.80	
L020	Unskilled Labor	md	12.61	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	4,035.20	0.00	0.00	0.00	4,035.20	4,035.20	
W0205	Concrete (Class AAI, 28MPa, max agg. 25mm)	m3	54.29	2.2%	83.1%	14.7%	57.8%	42.2%	1,740.00	2,112.80	78,471.11	13,880.69	54,570.58	39,894.02	94,464.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	50.27	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	2,045.31	25.43	10,898.92	5,840.79	7,128.87	12,969.66	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	3,137.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	11,314.51	56,368.43	5,722.86	39,529.41	33,876.39	73,405.80	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	13,975.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	50,265.49	265,891.42	26,230.59	186,057.88	156,329.62	342,387.50	
Q0513-120	All Casing Excavator, $\phi$ 1200max	hr	36.35	1.0%	4.4%	94.6%	55.4%	44.6%	6,210.00	2,340.86	9,859.62	213,533.02	125,045.09	100,688.41	225,733.50	
R0401-035	Crawler Crane, 31-35t	hr	32.71	4.4%	9.8%	85.8%	52.9%	47.1%	1,680.00	2,417.92	5,385.37	47,149.50	29,076.45	25,876.35	54,952.80	
Q0514-080	Hammer Grab, $\phi$ 800	day	5.59	0.0%	0.0%	100.0%	67.0%	33.0%	5,170.00	0.00	0.00	28,900.30	19,351.84	9,548.46	28,900.30	
Q0515-002	Hammer Crown, $> \phi$ 1200	day	5.59	0.0%	0.0%	100.0%	70.7%	29.3%	1,920.00	0.00	0.00	10,732.80	7,588.66	3,144.14	10,732.80	
Q0516-085	Casing Tube, $\phi$ 800, L=5m	day	117.90	0.0%	0.0%	100.0%	68.5%	31.5%	1,710.00	0.00	0.00	201,609.00	138,148.92	63,460.08	201,609.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	48.80	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	374.68	670.42	3,498.18	2,336.01	2,207.27	4,543.28	
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	55.0%	45.0%		1,594.52	9,567.10	20,728.71	17,539.68	14,350.64	31,890.32	3.0%
	Total									85,777.53	426,238.91	582,884.56	625,065.31	469,815.70	1,094,901.00	
	Components (%)									7.8%	38.9%	53.2%	57.1%	42.9%	100.0%	
	Unit Rate	m								853.94	4,243.31	5,802.75	6,222.87	4,677.13	10,900.00	

Miscellaneous covers the cost for stand pipe, tremy pipe, welder, vessel, slash tank, suction hose, water pump, etc.

Tc = Tso + Te

Tc: Cycle time per pile =

278.10 min/pile

Excavator Operation Time TD1 = Tc - 16.4

261.70 min/pile

Tso: Preparation Time = 46.8+11.3xL2

= 178.45 min/pile

Crawler Crane Operation Time TD2 = 0.9xTD1

235.53 min/pile

Te: Excavation Time =  $\sum a_i x L_i$ 

= 99.66 min/pile

D : Pile diameter

0.800 m

L : Pile Length

12.000 m

L2: Excavation depth

11.650 m

Steel Casing Length

12.650 m

T : Daily Operation hour

6.50 hr

	ai	Li	aiLi
N < 20	8.30	9.250	76.78
N < 40	9.20	1.600	14.72
N > 40	10.20	0.800	8.16
Total		11.650	99.66

## 400(19)a Pile shoes for 400mm x 400mm Piles

Unit: 1.00 each

Item No.		Description		Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
						Component (%)						Component (PP)						
						Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L009		Welder	md	0.05	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	25.45	0.00	0.00	0.00	0.00	25.45	25.45	2.0%
L019		Skilled Labor	md	0.05	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	20.50	0.00	0.00	0.00	0.00	20.50	20.50	
M02015		Structural Steel (Plates, SS400)	kg	11.99	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	242.20	0.00	169.54	72.66	242.20		
M02002		Reinforcing Bars, Grade 60	kg	22.70	0.0%	100.0%	0.0%	65.0%	35.0%	17.00	0.00	385.90	0.00	250.84	135.07	385.90		
R0901-025		Welding Machine 250A	day	0.05	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	11.70	17.70	17.22	12.18	29.40		
		Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		1.41	4.22	8.44	7.03	7.03	14.07		
Total											47.36	644.02	26.14	444.63	272.89	717.52		
Components (%)											6.6%	89.8%	3.6%	62.0%	38.0%	100.0%		
Unit Rate				each							47.39	644.45	26.16	444.93	273.07	718.00		

Miscellaneous covers the cost for steel cutters, acetylene gas, welding rods, wires, etc.

## 400(19)b Pile shoes for 450mm x 450mm Piles

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L009	Welder	md	0.05	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	25.45	0.00	0.00	0.00	25.45	2.0%	
L019	Skilled Labor	md	0.05	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	20.50	0.00	0.00	0.00	20.50		
W02015	Structural Steel (Plates, SS400)	kg	11.99	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	242.20	0.00	169.54	72.66		
W02002	Reinforcing Bars, Grade 60	kg	22.70	0.0%	100.0%	0.0%	65.0%	35.0%	17.00	0.00	385.90	0.00	250.84	135.07		
R0901-025	Welding Machine 250A	day	0.05	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	11.70	17.70	17.22	12.18		
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		1.41	4.22	8.44	7.03	14.07		
	Total									47.36	644.02	26.14	444.63	272.89		
	Components (%)									6.6%	89.8%	3.6%	62.0%	38.0%		
	Unit Rate	each								47.39	644.45	26.16	444.93	273.07		

Miscellaneous covers the cost for steel cutters, acetylene gas, welding rods, wires, etc.

## 400(20)a Splices for 400mm x 400mm Piles

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
M02011	Structural Steel (Round Bar, SS400)	kg	5,752.40	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	125,402.32	0.00	87,781.62	37,620.70	125,402.32	
W0225	Grout (non-shrink)	m3	0.78	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	23.11	2,294.48	61.41	1,457.42	921.58	2,379.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		256.38	769.15	1,538.30	1,281.91	1,281.91	2,563.83	2.0%
	Total									689.49	128,465.95	1,599.70	90,520.96	40,234.19	130,755.15	
	Components (%)									0.5%	98.2%	1.2%	69.2%	30.8%	100.0%	
	Unit Rate	each								6.91	1,287.07	16.03	906.90	403.10	1,310.00	

Miscellaneous covers the cost for steel cutters, acetylene gas, welding rods, wires, etc.

## 400(20)b Splices for 450mm x 450mm Piles

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00		
M02011	Structural Steel (Round Bar, SS400)	kg	5,762.10	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	125,613.78	0.00	87,929.65	37,684.13	125,613.78		
W0225	Grout (non-shrink)	m3	0.82	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	24.30	2,412.15	64.56	1,532.16	968.84	2,501.00		
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		257.05	771.15	1,542.30	1,285.25	1,285.25	2,570.50	2.0%	
	Total									691.35	128,797.05	1,606.85	90,747.05	40,348.22	131,095.28		
	Components (%)									0.5%	98.2%	1.2%	69.2%	30.8%	100.0%		
	Unit Rate	each								6.91	1,287.03	16.06	906.81	403.19	1,310.00		

Miscellaneous covers the cost for steel cutters, acetylene gas, welding rods, wires, etc.

400(21) Static Pile Load Test for  $\phi$ 1500mm Bored Piles

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00		
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00		
	Static Pile Load Test for $\phi$ 1500mm Bored Piles	each	1.00	30.0%	15.0%	55.0%	45.0%	55.0%	92,700.00	27,810.00	13,905.00	50,985.00	41,715.00	50,985.00	92,700.00	
	Miscellaneous	LS	1.00	30.0%	10.0%	60.0%	40.0%	60.0%		8,405.82	2,801.94	16,811.64	11,207.76	16,811.64	28,019.40	30.0%
	Total									36,913.82	16,706.94	67,796.64	52,922.76	68,494.64	121,417.40	
	Components (%)									30.4%	13.8%	55.8%	43.6%	56.4%	100.0%	
	Unit Rate	each								36,786.92	16,649.51	67,563.57	52,740.83	68,259.17	121,000.00	

Miscellaneous covers the cost for overhead, mobilization, etc. of subcontractor, etc.

SPL 400(23)a High Strain Dynamic Pile Test for  $\phi$ 1000mm Bored Piles

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
	Dynamic Pile Load Test for $\phi$ 1000mm Bored Piles	each	1.00	30.0%	15.0%	55.0%	45.0%	55.0%	94,000.00	28,200.00	14,100.00	51,700.00	42,300.00	51,700.00	94,000.00	
	Miscellaneous	LS	1.00	30.0%	10.0%	60.0%	40.0%	60.0%		8,522.82	2,840.94	17,045.64	11,363.76	17,045.64	28,409.40	30.0%
	Total									37,420.82	16,940.94	68,745.64	53,663.76	69,443.64	123,107.40	
	Components (%)									30.4%	13.8%	55.8%	43.6%	56.4%	100.0%	
	Unit Rate	each								37,388.17	16,926.16	68,685.67	53,616.94	69,383.06	123,000.00	

Miscellaneous covers the cost for overhead, mobilization, etc. of subcontractor, etc.

SPL 400(23)b High Strain Dynamic Pile Test for  $\phi$ 1200mm Bored Piles

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
	Dynamic Pile Load Test for $\phi$ 1500mm Bored Piles	each	1.00	30.0%	15.0%	55.0%	45.0%	55.0%	96,000.00	28,800.00	14,400.00	52,800.00	43,200.00	52,800.00	96,000.00	
	Miscellaneous	LS	1.00	30.0%	10.0%	60.0%	40.0%	60.0%		8,702.82	2,900.94	17,405.64	11,603.76	17,405.64	29,009.40	30.0%
	Total									38,200.82	17,300.94	70,205.64	54,803.76	70,903.64	125,707.40	
	Components (%)									30.4%	13.8%	55.8%	43.6%	56.4%	100.0%	
	Unit Rate	each								38,289.74	17,341.21	70,369.05	54,931.32	71,068.68	126,000.00	

Miscellaneous covers the cost for overhead, mobilization, etc. of subcontractor, etc.

SPL 400(23)c High Strain Dynamic Pile Test for  $\phi 800$ mm Bored Piles

Unit: 1.00 each

Unit Rate											Amount					Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign		Local	
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
	Dynamic Pile Load Test for $\phi 800$ mm Bored Piles	each	1.00	30.0%	15.0%	55.0%	45.0%	55.0%	92,000.00	27,600.00	13,800.00	50,600.00	41,400.00	50,600.00	92,000.00	
	Miscellaneous	LS	1.00	30.0%	10.0%	60.0%	40.0%	60.0%		8,342.82	2,780.94	16,685.64	11,123.76	16,685.64	27,809.40	30.0%
	Total									36,640.82	16,580.94	67,285.64	52,523.76	67,983.64	120,507.40	
	Components (%)									30.4%	13.8%	55.8%	43.6%	56.4%	100.0%	
	Unit Rate	each								36,790.60	16,648.72	67,560.68	52,738.46	68,261.54	121,000.00	

Miscellaneous covers the cost for overhead, mobilization, etc. of subcontractor, etc.

## SPL 400(24) Pile Integrity Test for Bored Piles of various diameter

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L019	Skilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	410.00	0.00	0.00	0.00	410.00	410.00	
	Dynamic Pile Load Test for $\phi 1500$ mm Bored Piles	each	1.00	30.0%	15.0%	55.0%	45.0%	55.0%	125,000.00	37,500.00	18,750.00	68,750.00	56,250.00	68,750.00	125,000.00	
	Miscellaneous	LS	1.00	30.0%	10.0%	60.0%	40.0%	60.0%		11,312.82	3,770.94	22,625.64	15,083.76	22,625.64	37,709.40	30.0%
	Total									49,510.82	22,520.94	91,375.64	71,333.76	92,073.64	163,407.40	
	Components (%)									30.3%	13.8%	55.9%	43.7%	56.3%	100.0%	
	Unit Rate	each								49,387.38	22,464.79	91,147.83	71,155.91	91,844.09	163,000.00	

Miscellaneous covers the cost for overhead, mobilization, etc. of subcontractor, etc.

## 401(1)a Concrete Railing Type A (Concrete Posts and Precast Beams)

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.13	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	44.11	1,464.11	288.47	1,020.67	776.03	1,796.70	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.11	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	45.16	0.56	240.66	128.97	157.41	286.38	
W0237	Concrete Curing (reinforced concrete)	m3	1.11	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.55	0.36	0.85	0.66	4.10	4.76	
W0241	Formwork (reinforced concrete 11(4m)	m2	17.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,303.14	1,525.59	30.27	111.84	3,747.16	3,859.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	189.90	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	684.93	3,412.29	346.44	2,392.93	2,050.73	4,443.66	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	81.90	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	294.58	1,558.25	153.72	1,090.39	916.16	2,006.55	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,375.47	7,961.17	1,060.40	4,745.46	7,651.59	12,397.05	
	Components (%)									27.2%	64.2%	8.6%	38.3%	61.7%	100.0%	
	Unit Rate	m								337.63	796.31	106.07	474.66	765.34	1,240.00	

## 401(1)b Concrete Railing Type B (Concrete Wall Type)

Unit: 180.00 m

Concrete Paving Type B (Concrete Wall Type)				Unit Rate					Amount										Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)				
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local					
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	44.27	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	1,728.22	57,359.51	11,301.57	39,986.66	30,402.64	70,389.30	Loss 2.0%			
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	43.40	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	1,765.79	21.96	9,409.45	5,042.58	6,154.62	11,197.20				
W0237	Concrete Curing (reinforced concrete)	m3	43.40	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	138.95	14.17	33.07	25.98	160.21	186.19				
W0241	Formwork (reinforced concrete 11(4m)	m2	340.90	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	46,184.70	30,592.67	606.94	2,242.78	75,141.52	77,384.30				
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	3,786.50	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	13,657.12	68,039.23	6,907.75	47,713.77	40,890.33	88,604.10				
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%			
	Total									63,474.78	156,027.53	28,258.78	95,011.78	152,749.31	247,761.09				
	Components (%)									25.6%	63.0%	11.4%	38.3%	61.7%	100.0%				
	Unit Rate	m								353.55	869.05	157.40	529.20	850.80	1,380.00				

## 401(2)a Steel Railing Type A for Angat and Talavera Bridge, and Approach of Pampanga Bridge

Unit: 30.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.48	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	276.48	0.00	0.00	0.00	276.48	276.48	
L009	Welder	md	0.48	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	244.32	0.00	0.00	0.00	244.32	244.32	
L019	Skilled Labor	md	1.44	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	590.40	0.00	0.00	0.00	590.40	590.40	
L020	Unskilled Labor	md	0.96	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	307.20	0.00	0.00	0.00	307.20	307.20	
M02015	Structural Steel (Plates, SS400)	kg	301.50	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	6,090.30	0.00	4,263.21	1,827.09	6,090.30	
M02031	Steel Pipe	kg	1,342.50	0.0%	100.0%	0.0%	70.0%	30.0%	23.90	0.00	32,085.75	0.00	22,460.03	9,625.73	32,085.75	
M02011	Structural Steel (Round Bar, SS400)	kg	35.50	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	773.90	0.00	541.73	232.17	773.90	
M06003	Zinc Rich Primer for Steel	kg	4.02	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	1,503.48	0.00	977.26	526.22	1,503.48	
M06011	Rustproof Lead Paint for Steel	kg	6.71	0.0%	100.0%	0.0%	65.0%	35.0%	209.00	0.00	1,402.39	0.00	911.55	490.84	1,402.39	
M06022	Epoxy Resin Paint for Steel	kg	4.56	0.0%	100.0%	0.0%	65.0%	35.0%	496.00	0.00	2,261.76	0.00	1,470.14	791.62	2,261.76	
R0901-025	Welding Machine 250A	day	0.48	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	112.33	169.91	165.35	116.89	282.24	
R1001-200	Generator 151-200 kW	day	0.48	0.0%	47.6%	52.4%	59.4%	40.6%	5,280.00	0.00	1,206.37	1,328.03	1,505.96	1,028.44	2,534.40	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	2.74	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	206.40	123.84	1,001.39	625.13	706.51	1,331.64	
R0601-003	Dump Truck, 3.0-6.0 cu-yds (2.3-4.6m3)	hr	0.66	13.7%	19.2%	67.1%	48.9%	51.1%	447.00	40.42	56.64	197.96	144.21	150.81	295.02	
	Miscellaneous	LS	1.00	20.0%	20.0%	60.0%	50.0%	50.0%		2,998.76	2,998.76	8,996.27	7,496.89	7,496.89	14,993.78	30.0%
Total										4,663.98	48,615.53	11,693.56	40,561.47	24,411.60	64,973.06	
Components (%)										7.2%	74.8%	18.0%	62.4%	37.6%	100.0%	
Unit Rate			m							155.77	1,623.68	390.55	1,354.69	815.31	2,170.00	

Miscellaneous covers the costs for fabricator's overhead, facilities, minor tools and materials, falseworks, etc.

## 401(2)b Steel Railing Type B for Pampanga Main Bridge

Unit: 20.35 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	190.08	0.00	0.00	0.00	190.08	190.08	
L009	Welder	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	167.97	0.00	0.00	0.00	167.97	167.97	
L019	Skilled Labor	md	0.98	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	401.80	0.00	0.00	0.00	401.80	401.80	
L020	Unskilled Labor	md	0.65	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	208.00	0.00	0.00	0.00	208.00	208.00	
M02015	Structural Steel (Plates, SS400)	kg	1,068.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	21,573.60	0.00	15,101.52	6,472.08	21,573.60	
M02031	Steel Pipe	kg	312.70	0.0%	100.0%	0.0%	70.0%	30.0%	23.90	0.00	7,473.53	0.00	5,231.47	2,242.06	7,473.53	
M02011	Structural Steel (Round Bar, SS400)	kg	37.90	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	826.22	0.00	578.35	247.87	826.22	
M06003	Zinc Rich Primer for Steel	kg	6.78	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	2,535.72	0.00	1,648.22	887.50	2,535.72	
M06011	Rustproof Lead Paint for Steel	kg	11.30	0.0%	100.0%	0.0%	65.0%	35.0%	209.00	0.00	2,361.70	0.00	1,535.11	826.60	2,361.70	
M06022	Epoxy Resin Paint for Steel	kg	7.68	0.0%	100.0%	0.0%	65.0%	35.0%	496.00	0.00	3,809.28	0.00	2,476.03	1,333.25	3,809.28	
R0901-025	Welding Machine 250A	day	0.33	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	77.23	116.81	113.68	80.36	194.04	
R1001-200	Generator 151-200 kW	day	0.33	0.0%	47.6%	52.4%	59.4%	40.6%	5,280.00	0.00	829.38	913.02	1,035.35	707.05	1,742.40	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	1.88	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	141.62	84.97	687.09	428.92	484.76	913.68	
R0601-003	Dump Truck, 3.0-6.0 cu-yds (2.3-4.6m3)	hr	0.55	13.7%	19.2%	67.1%	48.9%	51.1%	447.00	33.68	47.20	164.97	120.18	125.67	245.85	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	12,793.16	30.0%
Total										1,143.15	39,618.84	1,881.88	28,268.82	14,375.05	55,437.03	
Components (%)										2.1%	71.5%	3.4%	51.0%	25.9%	100.0%	
Unit Rate			m							56.09	1,943.89	92.33	1,387.06	705.31	2,720.00	

Miscellaneous covers the costs for fabricator's overhead, facilities, minor tools and materials, falseworks, etc.

## SPL 401(3)a Bridge Name Plate, 1000 x 600 mm for Angat Bridge

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.43	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	247.68	0.00	0.00	0.00	247.68	247.68	
L019	Skilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	656.00	0.00	0.00	0.00	656.00	656.00	
L020	Unskilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	512.00	0.00	0.00	0.00	512.00	512.00	
M02501	Brass Plate	kg	1,068.00	0.0%	100.0%	0.0%	70.0%	30.0%	228.00	0.00	243,504.00	0.00	170,452.80	73,051.20	243,504.00	
M0225	Grout (non-shrink)	m3	0.09	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.67	264.75	7.09	168.16	106.34	274.50	
R0602-002	Cargo truck 2.0-5.0t	hr	1.08	14.7%	13.6%	71.7%	47.8%	52.2%	572.00	90.81	84.02	442.93	295.30	322.46	617.76	
	Miscellaneous	LS	1.00	20.0%	40.0%	40.0%	50.0%	50.0%		14,748.72	29,497.43	29,497.43	36,871.79	36,871.79	73,743.58	30.0%
Total										16,257.87	273,350.20	29,947.45	207,788.06	111,767.47	319,555.52	
Components (%)										5.1%	85.5%	9.4%	65.0%	35.0%	100.0%	
Unit Rate			each							1,628.05	27,373.04	2,998.91	20,807.71	11,192.29	32,000.00	

Miscellaneous covers the cost for overhead of fabricators, anchors, fixtures, carving, chipping, cleaning, minor tools, etc.

Plate Size = 1,000 x 600 x 20 mm  
Unit Weight = 8,900 kg/m3

SPL 401(3)b Bridge Name Plate, 1000 x 600 mm for Pampanga Bridge

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.43	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	247.68	0.00	0.00	0.00	247.68	247.68	
L019	Skilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	656.00	0.00	0.00	0.00	656.00	656.00	
L020	Unskilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	512.00	0.00	0.00	0.00	512.00	512.00	
W02501	Brass Plate	kg	1,068.00	0.0%	100.0%	0.0%	70.0%	30.0%	228.00	0.00	243,504.00	0.00	170,452.80	73,051.20	243,504.00	
W0225	Grout (non-shrink)	m3	0.09	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.67	264.75	7.09	168.16	106.34	274.50	
R0602-002	Cargo truck 2.0-5.0t	hr	1.08	14.7%	13.6%	71.7%	47.8%	52.2%	572.00	90.81	84.02	442.93	295.30	322.46	617.76	
	Miscellaneous	LS	1.00	20.0%	40.0%	40.0%	50.0%	50.0%		14,748.72	29,497.43	29,497.43	36,871.79	36,871.79	73,743.58	30.0%
Total										16,257.87	273,350.20	29,947.45	207,788.06	111,767.47	319,555.52	
Components (%)										5.1%	85.5%	9.4%	65.0%	35.0%	100.0%	
Unit Rate			each							1,628.05	27,373.04	2,998.91	20,807.71	11,192.29	32,000.00	

Miscellaneous covers the cost for overhead of fabricators, anchors, fixtures, carving, chipping, cleaning, minor tools, etc.

Plate Size = 1,000 x 600 x 20 mm

Unit Weight = 8,900 kg/m3

SPL 401(3)c Bridge Name Plate, 1000 x 600 mm for Talavera Bridge

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.43	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	247.68	0.00	0.00	0.00	247.68	247.68	
L019	Skilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	656.00	0.00	0.00	0.00	656.00	656.00	
L020	Unskilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	512.00	0.00	0.00	0.00	512.00	512.00	
W02501	Brass Plate	kg	1,068.00	0.0%	100.0%	0.0%	70.0%	30.0%	228.00	0.00	243,504.00	0.00	170,452.80	73,051.20	243,504.00	
W0225	Grout (non-shrink)	m3	0.09	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.67	264.75	7.09	168.16	106.34	274.50	
R0602-002	Cargo truck 2.0-5.0t	hr	1.08	14.7%	13.6%	71.7%	47.8%	52.2%	572.00	90.81	84.02	442.93	295.30	322.46	617.76	
	Miscellaneous	LS	1.00	20.0%	40.0%	40.0%	50.0%	50.0%		14,748.72	29,497.43	29,497.43	36,871.79	36,871.79	73,743.58	30.0%
Total										16,257.87	273,350.20	29,947.45	207,788.06	111,767.47	319,555.52	
Components (%)										5.1%	85.5%	9.4%	65.0%	35.0%	100.0%	
Unit Rate			each							1,628.05	27,373.04	2,998.91	20,807.71	11,192.29	32,000.00	

Miscellaneous covers the cost for overhead of fabricators, anchors, fixtures, carving, chipping, cleaning, minor tools, etc.

Plate Size = 1,000 x 600 x 20 mm

Unit Weight = 8,900 kg/m3

SPL 401(3)d Bridge Name Plate, 1000 x 600 mm for Interchange Ramp

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.43	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	247.68	0.00	0.00	0.00	247.68	247.68	
L019	Skilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	656.00	0.00	0.00	0.00	656.00	656.00	
L020	Unskilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	512.00	0.00	0.00	0.00	512.00	512.00	
M02501	Brass Plate	kg	1,068.00	0.0%	100.0%	0.0%	70.0%	30.0%	228.00	0.00	243,504.00	0.00	170,452.80	73,051.20	243,504.00	
W0225	Grout (non-shrink)	m3	0.09	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.67	264.75	7.09	168.16	106.34	274.50	
R0602-002	Cargo truck 2.0-5.0t	hr	1.08	14.7%	13.6%	71.7%	47.8%	52.2%	572.00	90.81	84.02	442.93	295.30	322.46	617.76	
	Miscellaneous	LS	1.00	20.0%	40.0%	40.0%	50.0%	50.0%		14,748.72	29,497.43	29,497.43	36,871.79	36,871.79	73,743.58	30.0%
Total										16,257.87	273,350.20	29,947.45	207,788.06	111,767.47	319,555.52	
Components (%)										5.1%	85.5%	9.4%	65.0%	35.0%	100.0%	
Unit Rate			each							1,628.05	27,373.04	2,998.91	20,807.71	11,192.29	32,000.00	

Miscellaneous covers the cost for overhead of fabricators, anchors, fixtures, carving, chipping, cleaning, minor tools, etc.

Plate Size = 1,000 x 600 x 20 mm

Unit Weight = 8,900 kg/m3

## 403(3) Structural Steel for Pampanga River Bridge, furnished and fabricated

Unit: 1,707,860.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	320.47	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	184,590.72	0.00	0.00	0.00	184,590.72	184,590.72	
L009	Welder	md	1,281.90	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	652,487.10	0.00	0.00	0.00	652,487.10	652,487.10	
L010	Painter	md	0.00	100.0%	0.0%	0.0%	0.0%	100.0%	448.00	0.00	0.00	0.00	0.00	0.00	0.00	
L019	Skilled Labor	md	1,922.85	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	788,368.50	0.00	0.00	0.00	788,368.50	788,368.50	
M02017	Structural Steel (Plates SMA490W)	kg	1,844,488.80	0.0%	100.0%	0.0%	75.0%	25.0%	45.00	0.00	83,001,996.00	0.00	62,251,497.00	20,750,499.00	83,001,996.00	Loss 8.0%
M02072	High Tension Bolt M20	each	85,400.00	0.0%	100.0%	0.0%	70.0%	30.0%	29.20	0.00	2,493,680.00	0.00	1,745,576.00	748,104.00	2,493,680.00	
M06001	Etching Primer for Steel	kg	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	274.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 3.0%
M06011	Rustproof Lead Paint for Steel	kg	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	209.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 3.0%
M06011	Rustproof Lead Paint for Steel	kg	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	209.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 3.0%
R0901-050	Welding Machine 500A	day	1,281.90	0.0%	60.4%	39.6%	60.6%	39.4%	1,470.00	0.00	1,138,173.37	746,219.63	1,142,632.84	741,760.16	1,884,393.00	
R0402-080	Truck Crane, Hydraulic 71-80t	hr	100.46	2.4%	4.2%	93.4%	53.5%	46.5%	3,080.00	7,426.00	12,995.51	288,995.29	165,548.11	143,868.69	309,416.80	
R0604-020	Trailer 20t	hr	502.31	3.9%	10.7%	85.4%	53.3%	46.7%	1,670.00	32,715.45	89,757.77	716,384.48	447,163.16	391,694.54	838,857.70	
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	50.0%	50.0%		1,803,075.80	10,818,454.78	23,139,985.35	18,030,757.96	18,030,757.96	36,061,515.93	40.0%
Total										3,468,663.57	97,555,057.43	25,191,584.75	83,783,175.07	42,432,130.68	126,215,305.75	
Components (%)										2.7%	77.3%	20.0%	66.4%	33.6%	100.0%	
Unit Rate				kg						2.03	57.12	14.75	49.06	24.84	73.90	

Miscellaneous covers the cost for overhead & facilities of fabricators, electricity and fuel consumption, welding rods, acetylene gas, etc.  
 Total Steel Weight = 1,707.86 t Haulage time =  $2 \times L/V + a =$  5.00 hr/trip  
 Welding Length = 3.19 m/t a : Loading Time = 1.00 hr  
 $y = \alpha \cdot (0.013 \cdot L + 6.0)$ , ( $9 \leq y \leq 17$ ) L : Haulage Distance = 50.00 km  
 y : Daily Welding Capacity V : Traveling Speed = 25.00 km/hr  
 L : Welding Length  
 $\alpha$  : Coefficient  
 Paint Area = 8.54 m<sup>2</sup>/t  
 Primer = 0.130 kg/m<sup>2</sup>  
 Rustproof-1 = 0.170 kg/m<sup>2</sup>  
 Rustproof-2 = 0.170 kg/m<sup>2</sup>

## 403(5) Structural Steel for Pampanga River Bridge, erected

Unit: 1,707,860.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0501	Ground Assembly of Structural Steel Bridge Members	t	1,196.00	11.6%	3.1%	85.3%	48.2%	51.8%	1,270.00	176,138.71	46,570.93	1,296,210.37	731,497.82	787,422.18	1,518,920.00	
W0502	Erection of Structural Steel Bridge Members	t	1,707.90	11.0%	4.8%	84.2%	48.3%	51.7%	1,290.00	241,760.82	105,622.84	1,855,807.34	1,063,908.28	1,139,282.72	2,203,191.00	
W0503	Bolting of Structural Steel Bridge Members	each	27,326.00	4.5%	93.2%	2.3%	66.1%	33.9%	43.70	53,924.61	1,112,664.37	27,557.22	788,969.37	405,176.83	1,194,146.20	
W0504	Finish Painting of Structural Steel Bridge Members	m <sup>2</sup>	0.00	42.5%	48.4%	9.1%	36.1%	63.9%	133.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0505	Temporary Bent for Steel Bridge Erection	t	556.70	4.6%	91.3%	4.1%	48.3%	51.7%	16,000.00	107,522.93	8,130,500.64	369,176.43	4,299,947.07	4,607,252.93	8,907,200.00	
W0506	Site Welding for Steel Bridge	m	446.50	23.7%	34.5%	41.9%	44.3%	55.7%	3,130.00	330,819.62	481,642.79	585,082.60	618,854.41	778,690.59	1,397,545.00	
	Miscellaneous	LS	1.00	0.0%	35.0%	65.0%	55.0%	45.0%		0.00	1,598,205.23	2,968,095.43	2,511,465.36	2,054,835.30	4,566,300.66	30.0%
Total										1,210,166.68	11,475,206.79	7,101,929.38	10,014,642.33	9,772,660.53	19,787,302.86	
Components (%)										6.1%	58.0%	35.9%	50.6%	49.4%	100.0%	
Unit Rate				kg						0.71	6.73	4.16	5.87	5.73	11.60	

Miscellaneous covers the cost for temporary scaffolding, supports, safety measures, etc.

## 403(8)a Bearing Shoe for Steel Plate Girder Type 1 (Max. R=250t) in Pampanga Bridge

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	236.16	0.00	0.00	0.00	236.16	236.16	
L019	Skilled Labor	md	1.64	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	672.40	0.00	0.00	0.00	672.40	672.40	
L020	Unskilled Labor	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	131.20	0.00	0.00	0.00	131.20	131.20	
M09104	Bearing Shoe (rubber enclosed type), 250t	each	1.00	0.0%	100.0%	0.0%	70.0%	30.0%	291,000.00	0.00	291,000.00	0.00	203,700.00	87,300.00	291,000.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.17	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	87.14	105.81	1,363.14	808.57	747.53	1,556.10	
W0225	Grout (non-shrink)	m <sup>3</sup>	0.06	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	1.78	176.50	4.72	112.11	70.89	183.00	Loss 3.0%
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	55.0%	45.0%		0.00	2,937.79	2,937.79	3,231.57	2,644.01	5,875.58	2.0%
Total										1,128.68	294,220.16	4,305.66	207,852.25	91,802.19	299,654.44	
Components (%)										0.4%	98.2%	1.4%	69.4%	30.6%	100.0%	
Unit Rate				each						1,129.98	294,559.40	4,310.62	208,091.95	91,908.05	300,000.00	

Miscellaneous covers the costs for depreciation of temporary supports, minor tools, generator, etc.  
 $v = N/[0.2 \cdot a \cdot (N+R)]$  N : Total number of shoes 22  
 v : Work capacity = 2.44 each/day a : Coefficient 1.50

## 403(8)b Bearing Shoe for Steel Plate Girder Type 2 (Max. R=650t) in Pampanga Bridge

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	236.16	0.00	0.00	0.00	236.16	236.16	
L019	Skilled Labor	md	1.64	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	672.40	0.00	0.00	0.00	672.40	672.40	
L020	Unskilled Labor	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	131.20	0.00	0.00	0.00	131.20	131.20	
M09106	Bearing Shoe (rubber enclosed type), 650t	each	1.00	0.0%	100.0%	0.0%	70.0%	30.0%	764,000.00	0.00	764,000.00	0.00	534,800.00	229,200.00	764,000.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.17	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	87.14	105.81	1,363.14	808.57	747.53	1,556.10	
W0225	Grout (non-shrink)	m3	0.07	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.07	205.92	5.51	130.79	82.71	213.50	Loss 3.0%
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	55.0%	45.0%		0.00	7,668.09	7,668.09	8,434.90	6,901.28	15,336.19	2.0%
	Total									1,128.98	771,979.82	9,036.75	544,174.27	237,971.28	782,145.55	
	Components (%)									0.1%	98.7%	1.2%	69.6%	30.4%	100.0%	
	Unit Rate	each								1,128.77	771,836.17	9,035.07	544,073.01	237,926.99	782,000.00	

Miscellaneous covers the costs for depreciation of temporary supports, minor tools, generator, etc.

$$v = N/[02 \cdot a \cdot (N+8)]$$

v : Work capacity

$$= 2.44 \text{ each/day}$$

N: Total number of shoes

22

a : Coefficient

1.50

## 403(8)c Bearing Shoe for Steel Plate Girder Type 3 (Max. R=650t) in Pampanga Bridge

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	236.16	0.00	0.00	0.00	236.16	236.16	
L019	Skilled Labor	md	1.64	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	672.40	0.00	0.00	0.00	672.40	672.40	
L020	Unskilled Labor	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	131.20	0.00	0.00	0.00	131.20	131.20	
M09108	Bearing Shoe (rubber enclosed type), 650t	each	1.00	0.0%	100.0%	0.0%	70.0%	30.0%	764,000.00	0.00	764,000.00	0.00	534,800.00	229,200.00	764,000.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	1.17	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	87.14	105.81	1,363.14	808.57	747.53	1,556.10	
W0225	Grout (non-shrink)	m3	0.07	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	2.07	205.92	5.51	130.79	82.71	213.50	Loss 3.0%
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	55.0%	45.0%		0.00	7,668.09	7,668.09	8,434.90	6,901.28	15,336.19	2.0%
	Total									1,128.98	771,979.82	9,036.75	544,174.27	237,971.28	782,145.55	
	Components (%)									0.1%	98.7%	1.2%	69.6%	30.4%	100.0%	
	Unit Rate	each								1,128.77	771,836.17	9,035.07	544,073.01	237,926.99	782,000.00	

Miscellaneous covers the costs for depreciation of temporary supports, minor tools, generator, etc.

$$v = N/[02 \cdot a \cdot (N+8)]$$

v : Work capacity

$$= 2.44 \text{ each/day}$$

N: Total number of shoes

22

a : Coefficient

1.50

## SPL 403(9) Steel Grating for Sunlight Opening in Underpasses

Unit: 10.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.57	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	328.32	0.00	0.00	0.00	328.32	328.32	
L009	Welder	md	1.91	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	972.19	0.00	0.00	0.00	972.19	972.19	
L019	Skilled Labor	md	1.91	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	783.10	0.00	0.00	0.00	783.10	783.10	
L020	Unskilled Labor	md	0.95	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	304.00	0.00	0.00	0.00	304.00	304.00	
M02012	Structural Steel (Flat Bar, SS400)	kg	1,284.43	0.0%	100.0%	0.0%	70.0%	30.0%	22.70	0.00	29,156.56	0.00	20,409.59	8,746.97	29,156.56	Loss 7.0%
M02014	Structural Steel (Shapes, SS400)	kg	623.06	0.0%	100.0%	0.0%	70.0%	30.0%	17.60	0.00	10,965.86	0.00	7,676.10	3,289.76	10,965.86	Loss 7.0%
R0901-025	Welding Machine 250A	day	1.91	0.0%	39.8%	60.2%	58.6%	41.4%	588.00	0.00	446.99	676.09	657.96	465.12	1,123.08	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	0.10	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	7.10	8.63	111.12	65.91	60.94	126.85	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	0.82	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	50.02	88.66	356.60	251.08	244.20	495.28	
	Miscellaneous	LS	1.00	10.0%	35.0%	55.0%	50.0%	50.0%		1,327.66	4,646.80	7,302.11	6,638.29	6,638.29	13,276.57	30.0%
	Total									3,772.39	45,313.49	8,445.93	35,698.93	21,832.88	57,531.81	
	Components (%)									6.6%	78.8%	14.7%	62.1%	37.9%	100.0%	
	Unit Rate	m2								377.03	4,528.84	844.13	3,567.92	2,182.08	5,750.00	

Miscellaneous covers the cost for fabricator's overhead &amp; facilities, painting or galvanizing, etc.

404(1) Reinforcement Steel Grade 40										Unit: 1,000.00 kg										
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks				
				Component (%)						Component (PP)										
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local						
L002	Foreman	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	403.20	0.00	0.00	0.00	403.20	403.20					
L006	Re-Bar Worker	md	4.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,886.00	0.00	0.00	0.00	1,886.00	1,886.00					
L019	Skilled Labor	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	246.00	0.00	0.00	0.00	246.00	246.00					
L020	Unskilled Labor	md	3.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,024.00	0.00	0.00	0.00	1,024.00	1,024.00					
M02001	Reinforcing Bars, Grade 40	kg	1,070.00	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	17,120.00	0.00	11,128.00	5,992.00	17,120.00	Loss 7.0%				
R0402-025	Truck Crane, Hydraulic 21-25t	hr	0.57	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	42.45	51.55	664.10	393.92	364.18	758.10					
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	771.74	1,157.61	1,061.15	868.21	1,929.36	9.0%				
Total										3,601.65	17,943.29	1,821.71	12,583.07	10,783.59	23,366.66					
Components (%)										15.4%	76.8%	7.8%	53.9%	46.1%	100.0%					
Unit Rate										3.61	17.97	1.82	12.60	10.80	23.40					

Miscellaneous covers the cost for bar cutter, bar bender, binding wire, spacer, etc.

404(2) Reinforcement Steel Grade 60										Unit: 1,000.00 kg						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	403.20	0.00	0.00	0.00	403.20	403.20	Loss 7.0%
L006	Re-Bar Worker	md	4.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,886.00	0.00	0.00	0.00	1,886.00	1,886.00	
L019	Skilled Labor	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	246.00	0.00	0.00	0.00	246.00	246.00	
L020	Unskilled Labor	md	3.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,024.00	0.00	0.00	0.00	1,024.00	1,024.00	
M02002	Reinforcing Bars, Grade 60	kg	1,070.00	0.0%	100.0%	0.0%	65.0%	35.0%	17.00	0.00	18,190.00	0.00	11,823.50	6,366.50	18,190.00	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	0.57	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	42.45	51.55	664.10	393.92	364.18	758.10	9.0%
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	810.26	1,215.39	1,114.11	911.55	2,025.66	
Total										3,601.65	19,051.81	1,879.49	13,331.53	11,201.43	24,532.96	
Components (%)										14.7%	77.7%	7.7%	54.3%	45.7%	100.0%	
Unit Rate			kg							3.60	19.03	1.88	13.31	11.19	24.50	

Miscellaneous covers the cost for bar cutter, bar bender, binding wire, spacer, etc.

405(1)a Structural Concrete Class A (fc'=21MPa, max. aggregate 38mm) for heavily reinforced structures										Unit: 10.00 m3					Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					
				Component (%)						Component (PP)					
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	10.20	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	398.19	13,215.88	2,603.93	9,213.10	7,004.90	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	
W0241	Formwork (reinforced concrete 11K4m)	m2	49.20	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	6,665.55	4,415.25	87.60	323.69	10,844.71	
W0441	Temporary Frame Support Installation & Removal	m3	20.00	59.4%	3.9%	38.7%	22.3%	77.7%	53.10	630.68	41.33	389.99	236.70	825.30	
W0442	Temporary Frame Support Depreciation	m3-d	560.00	0.0%	96.3%	3.7%	50.0%	50.0%	0.76	0.00	410.92	15.80	213.36	213.36	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	
Total										8,133.31	18,091.70	5,273.02	11,154.72	20,343.30	31,498.02
Components (%)										25.8%	57.4%	16.7%	35.4%	64.6%	100.0%
Unit Rate										813.38	1,809.28	527.33	1,115.54	2,034.46	3,150.00

Depreciation period for temporary support = 28 days

405(1)b Structural Concrete Class A ( $f_c'$ =21MPa, max. aggregate 38mm) for small & medium bridges substructures										Unit: 10.00 m3					Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					
				Component (%)						Component (PP)					
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	10.20	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	398.19	13,215.88	2,603.93	9,213.10	7,004.90	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	
W0241	Formwork (reinforced concrete 11K4m)	m2	14.90	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,018.63	1,337.14	26.53	98.03	3,284.27	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	
Total										2,855.70	14,561.34	4,806.16	10,479.00	11,744.20	22,223.20
Components (%)										12.9%	65.5%	21.6%	47.2%	52.8%	100.0%
Unit Rate				m3						285.27	1,454.61	480.11	1,046.81	1,173.19	2,220.00



## 405(1)c Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small &amp; medium bridges RCDG superstructures

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203a	Concrete (Class A1, 21MPa, max agg. 20mm)	m3	10.20	2.3%	82.6%	15.0%	57.0%	43.0%	1,660.00	393.64	13,990.28	2,548.09	9,645.74	7,286.26	16,932.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	2,580.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0441	Temporary Frame Support Installation & Removal	m3	102.30	59.4%	3.9%	36.7%	22.3%	77.7%	53.10	3,225.95	211.38	1,994.80	1,210.74	4,221.39	5,432.13	
W0442	Temporary Frame Support Depreciation	m3-d	6,138.00	0.0%	96.3%	3.7%	50.0%	50.0%	0.76	0.00	4,503.93	173.23	2,338.58	2,338.58	4,677.16	
W0241	Formwork (reinforced concrete H<4m)	m2	50.10	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	6,787.48	4,496.02	89.20	329.61	11,043.09	11,372.70	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									10,845.95	23,209.93	6,981.01	14,692.55	26,344.34	41,036.89	
	Components (%)									26.4%	56.6%	17.0%	35.8%	64.2%	100.0%	
	Unit Rate	m3								1,083.62	2,318.91	697.47	1,467.93	2,632.07	4,100.00	

Depreciation period for temporary support = 60 days

## 405(1)d Structural Concrete Class A1 (fc'=21MPa, max. aggregate 20mm) for small &amp; medium bridges PCDG superstructures

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203a	Concrete (Class A1, 21MPa, max agg. 20mm)	m3	10.20	2.3%	82.6%	15.0%	57.0%	43.0%	1,660.00	393.64	13,990.28	2,548.09	9,645.74	7,286.26	16,932.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	2,580.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0411	Temporary Struts & Supports Installation	t	2.60	34.0%	9.4%	56.6%	36.7%	63.3%	1,400.00	1,238.47	342.96	2,058.57	1,334.09	2,305.91	3,640.00	
W0412	Temporary Struts & Supports Removal	t	2.60	35.7%	9.1%	55.2%	35.5%	64.5%	833.00	772.59	197.12	1,196.09	769.05	1,396.75	2,165.80	
W05041	Temporary Steel Shapes Depreciation	t-d	156.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	4,882.80	0.00	2,441.40	2,441.40	4,882.80	
W0241	Formwork (reinforced concrete H<4m)	m2	42.60	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	5,771.39	3,822.96	75.84	280.27	9,389.93	9,670.20	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									8,614.97	23,244.44	8,054.29	15,638.43	24,275.27	39,913.70	
	Components (%)									21.6%	58.2%	20.2%	39.2%	60.8%	100.0%	
	Unit Rate	m3								861.20	2,323.65	805.15	1,563.31	2,426.69	3,990.00	

Depreciation period for temporary support = 60 days

## 405(1)e Structural Concrete Class A1 (fc'=28MPa, max. aggregate 25) for long bridge substructures

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0205	Concrete (Class A1, 28MPa, max agg. 25mm)	m3	10.20	2.2%	83.1%	14.7%	57.8%	42.2%	1,740.00	396.95	14,743.14	2,607.90	10,252.72	7,495.28	17,748.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	2,580.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0241	Formwork (reinforced concrete H<4m)	m2	13.10	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,774.77	1,175.61	23.32	86.18	2,887.52	2,973.70	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,610.60	15,927.07	4,806.92	11,506.77	11,837.83	23,344.60	
	Components (%)									11.2%	68.2%	20.6%	49.3%	50.7%	100.0%	
	Unit Rate	m3								260.56	1,589.66	479.77	1,148.48	1,181.52	2,330.00	

## 405(1)f Structural Concrete Class A2 (fc'=28MPa, max. aggregate 20mm) for long bridge superstructures

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0206	Concrete (Class A2, 28MPa, max agg. 20mm)	m3	10.20	2.1%	84.3%	13.6%	57.9%	42.1%	1,820.00	389.70	15,645.98	2,528.32	10,757.69	7,806.31	18,554.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	2,580.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0411	Temporary Struts & Supports Installation	t	2.90	34.0%	9.4%	56.6%	36.7%	63.3%	1,400.00	1,381.37	382.53	2,296.10	1,488.03	2,571.97	4,060.00	
W0412	Temporary Struts & Supports Removal	t	2.90	35.7%	9.1%	55.2%	35.5%	64.5%	833.00	861.74	219.86	1,334.10	857.79	1,557.91	2,415.70	
W05041	Temporary Steel Shapes Depreciation	t-d	174.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	5,446.20	0.00	2,723.10	2,723.10	5,446.20	
W0241	Formwork (reinforced concrete H<4m)	m2	49.20	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	6,665.55	4,415.25	87.60	323.69	10,844.71	11,168.40	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									9,737.24	26,118.15	8,421.81	17,318.17	26,959.03	44,277.20	
	Components (%)									22.0%	59.0%	19.0%	39.1%	60.9%	100.0%	
	Unit Rate	m3								974.23	2,613.16	842.61	1,732.71	2,697.29	4,430.00	

Depreciation period for temporary support = 60 days

405(2) Structural Concrete Class B (fc'=17MPa, max. aggregate 50mm) for plain or lightly reinforced structures										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0202	Concrete (Class B, 17MPa, max agg. 50mm)	m3	10.20	2.9%	77.5%	19.6%	56.2%	43.8%	1,360.00	406.82	10,744.67	2,720.51	7,796.83	6,075.17	13,872.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	10.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	408.08	4.20	1,727.72	926.01	1,213.99	2,140.00	
W0236	Concrete Curing (plain concrete)	m3	10.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	63.97	7.87	18.36	14.43	75.77	90.20	
W0241	Formwork (reinforced concrete H<4m)	m2	33.30	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,511.44	2,988.37	59.29	219.08	7,340.02	7,559.10	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,390.32	13,745.11	4,525.87	8,956.34	14,704.96	23,661.30	
	Components (%)									22.8%	58.1%	19.1%	37.9%	62.1%	100.0%	
	Unit Rate	m3								539.91	1,376.76	453.33	897.10	1,472.90	2,370.00	
405(3) Structural Concrete Class C (fc'=21MPa, max. aggregate 12mm) for thin reinforced members										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0204	Concrete (Class C, 21MPa, max agg. 12mm)	m3	10.20	2.3%	83.2%	14.5%	57.0%	43.0%	1,680.00	388.18	14,257.76	2,490.06	9,774.86	7,361.14	17,136.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	10.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	406.86	5.06	2,168.08	1,161.88	1,418.12	2,580.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0241	Formwork (reinforced concrete H<4m)	m2	25.80	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,495.35	2,315.31	45.93	169.74	5,686.86	5,856.60	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,322.41	16,581.40	4,711.69	11,112.46	14,503.04	25,615.50	
	Components (%)									16.9%	64.7%	18.4%	43.4%	56.6%	100.0%	
	Unit Rate	m3								431.98	1,657.14	470.88	1,110.57	1,449.43	2,560.00	
405(4)b Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed box girders in Angat Bridge										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	10.20	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	391.98	18,605.61	2,524.42	12,559.79	8,962.21	21,522.00	Loss 2.0%
W0233	Concrete Pouring by Pump Vehicle for PC box girder cantilever construction	m3	10.00	29.5%	0.2%	70.3%	37.7%	62.3%	511.00	1,506.08	10.02	3,593.90	1,927.12	3,182.88	5,110.00	
W0237	Concrete Curing (reinforced concrete)	m3	10.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	32.01	3.27	7.62	5.99	36.91	42.90	
W0245	Formwork Installation and Removal for PC Box Girder (Cantilever Construction)	m2	31.60	63.0%	21.4%	15.6%	11.3%	88.7%	473.00	9,417.07	3,194.36	2,335.37	1,688.32	13,258.48	14,946.80	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									11,347.14	21,813.25	8,461.31	16,181.22	25,440.48	41,621.70	
	Components (%)									27.3%	52.4%	20.3%	38.9%	61.1%	100.0%	
	Unit Rate	m3								1,134.12	2,180.19	845.69	1,617.28	2,542.72	4,160.00	
405(4)c Structural Concrete Class PP (41MPa, max. agg. 20mm) for prestressed hollow slab girders										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L002	Foreman	md	0.90	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	518.40	0.00	0.00	0.00	518.40	518.40	
L005	Carpenter	md	4.80	100.0%	0.0%	0.0%	0.0%	100.0%	451.00	2,164.80	0.00	0.00	0.00	2,164.80	2,164.80	
L019	Skilled Labor	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	328.00	0.00	0.00	0.00	328.00	328.00	
L019	Skilled Labor	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	328.00	0.00	0.00	0.00	328.00	328.00	
L020	Unskilled Labor	md	4.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,472.00	0.00	0.00	0.00	1,472.00	1,472.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	10.20	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	391.98	18,605.61	2,524.42	12,559.79	8,962.21	21,522.00	Loss 2.0%
R0702-100	Concrete Pump Vehicle 100cu-yds/hr (76.5m3/hr)	hr	0.50	0.0%	0.0%	100.0%	53.4%	46.6%	2,190.00	0.00	0.00	1,095.00	585.05	509.95	1,095.00	
W0242	Formwork (reinforced concrete H≥4m)	m2	44.00	47.6%	33.4%	19.1%	13.5%	86.5%	285.00	5,963.92	4,182.92	2,393.17	1,698.57	10,841.43	12,540.00	
W0441	Temporary Frame Support Installation & Removal	m3	81.50	59.4%	3.9%	36.7%	22.3%	77.7%	53.10	2,570.04	168.40	1,589.21	964.57	3,363.08	4,327.65	
W0442	Temporary Frame Support Depreciation	m3-d	4,890.00	0.0%	96.3%	3.7%	50.0%	50.0%	0.76	0.00	3,588.17	138.01	1,863.09	1,863.09	3,726.18	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									13,737.13	26,545.10	7,739.80	17,671.08	30,350.95	48,022.03	
	Components (%)									28.6%	55.3%	16.1%	63.2%	36.8%	100.0%	
	Unit Rate	m3								1,373.08	2,653.29	773.63	1,766.30	3,033.70	4,800.00	
Depreciation period for temporary support = 60 days																

405(6) Lean Concrete (17MPa, max. agg. 38mm), poured										Unit: 10.00 m3							
Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	10.20	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	397.22	11,993.22	2,603.56	8,479.10	6,514.90	14,994.00	Loss 2.0%	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	10.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	408.08	4.20	1,727.72	926.01	1,213.99	2,140.00		
W0236	Concrete Curing (plain concrete)	m3	10.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	63.97	7.87	18.36	14.43	75.77	90.20	0.0%	
W0243	Formwork (lean concrete)	m2	12.50	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	796.49	1,101.01	15.00	72.68	1,839.82	1,912.50		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00		
	Total									1,665.77	13,106.29	4,364.64	9,492.21	9,644.49	19,136.70		
	Components (%)									8.7%	68.5%	22.8%	49.6%	50.4%	100.0%		
	Unit Rate	m3								166.26	1,308.12	435.63	947.40	962.60	1,910.00		

406(1)a Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=20m), fabricated & erected										Unit: 1.00 each						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	11.59	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	445.39	21,141.08	2,868.43	14,271.37	10,183.53	24,454.90	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	11.36	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	463.58	4.77	1,962.69	1,051.95	1,379.09	2,431.04	
W0237	Concrete Curing (reinforced concrete)	m3	11.36	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	36.37	3.71	8.66	6.80	41.93	48.73	
W0241	Formwork (reinforced concrete H<4m)	m2	62.46	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	8,462.00	5,605.22	111.20	410.92	13,767.50	14,178.42	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	761.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	2,744.77	13,674.33	1,388.30	9,589.38	8,218.02	17,807.40	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	959.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	3,449.35	18,246.14	1,800.01	12,767.76	10,727.74	23,495.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	40.80	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	2,666.97	51,886.82	118.21	36,004.52	18,667.48	54,672.00	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0555	Precast PC Girder Erection (20.0 ≤ W < 35.0 t)	t	28.40	15.5%	3.6%	80.9%	46.3%	53.7%	214.00	942.41	220.98	4,914.20	2,815.05	3,262.55	6,077.60	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									24,198.77	149,170.51	14,098.31	105,983.38	81,484.21	187,467.59	
	Components (%)									12.9%	79.6%	7.5%	56.5%	43.5%	100.0%	
	Unit Rate	each								24,138.41	148,798.44	14,063.15	105,719.03	81,280.97	187,000.00	

406(1)b Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=22m), fabricated & erected										Unit: 1.00 each		Remarks				
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material		Equipment	Foreign		Local
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	12.63	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	485.36	23,038.12	3,125.82	15,551.98	11,097.32	26,649.30	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	12.38	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	505.21	5.19	2,138.92	1,146.40	1,502.92	2,649.32	
W0237	Concrete Curing (reinforced concrete)	m3	12.38	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	39.63	4.04	9.43	7.41	45.70	53.11	
W0241	Formwork (reinforced concrete H<4m)	m2	68.53	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	9,284.36	6,149.94	122.01	450.86	15,105.45	15,556.31	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	804.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	2,899.86	14,446.99	1,466.74	10,131.22	8,682.38	18,813.60	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,045.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	3,758.67	19,882.40	1,961.43	13,912.74	11,689.76	25,602.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	44.88	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	2,933.66	57,075.51	130.03	39,604.97	20,534.23	60,139.20	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0555	Precast PC Girder Erection (20.0 ≤ W < 35.0 t)	t	30.95	15.5%	3.6%	80.9%	46.3%	53.7%	214.00	1,027.03	240.82	5,355.45	3,067.81	3,555.49	6,623.30	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									25,921.72	159,230.48	15,236.44	112,939.01	87,449.63	200,388.64	
	Components (%)									12.9%	79.5%	7.6%	56.4%	43.6%	100.0%	
	Unit Rate	each								25,871.44	158,921.66	15,206.89	112,719.97	87,280.03	200,000.00	

## 406(1)c Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=24m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	13.67	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	525.33	24,935.16	3,383.21	16,832.59	12,011.11	28,843.70	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	13.40	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	546.83	5.62	2,315.15	1,240.85	1,626.75	2,867.60	
W0237	Concrete Curing (reinforced concrete)	m3	13.40	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	42.90	4.38	10.21	8.02	49.47	57.49	
W0241	Formwork (reinforced concrete H<4m)	m2	74.65	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	10,113.49	6,699.16	132.91	491.12	16,454.43	16,945.55	0.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	879.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	3,170.37	15,794.66	1,603.57	11,076.30	9,492.30	20,568.60	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,154.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	4,150.72	21,956.26	2,166.02	15,363.92	12,909.08	28,273.00	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	48.96	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	3,200.36	62,264.19	141.85	43,205.42	22,400.98	65,606.40	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	24.48	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	1,492.61	26,354.11	60.48	18,273.90	9,633.30	27,907.20	0.0%
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	1.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	475.25	18,942.96	181.80	14,244.96	5,355.04	19,600.00	
W0555	Precast PC Girder Erection (20.0 ≤ W < 35.0 t)	t	33.50	15.5%	3.6%	80.9%	46.3%	53.7%	214.00	1,111.65	260.66	5,796.69	3,320.57	3,848.43	7,169.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									29,817.44	215,604.61	16,718.49	153,123.28	109,017.26	262,140.54	
	Components (%)									11.4%	82.2%	6.4%	58.4%	41.6%	100.0%	
	Unit Rate	each								29,801.45	215,489.02	16,709.53	153,041.19	108,958.81	262,000.00	

## 406(1)d Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV L=25m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	14.19	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	545.31	25,883.68	3,511.91	17,472.89	12,468.01	29,940.90	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	13.91	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	567.64	5.84	2,403.26	1,288.08	1,688.66	2,976.74	
W0237	Concrete Curing (reinforced concrete)	m3	13.91	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	44.53	4.54	10.60	8.33	51.34	59.67	
W0241	Formwork (reinforced concrete H<4m)	m2	77.71	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	10,528.05	6,973.76	138.35	511.25	17,128.92	17,640.17	0.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	918.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	3,311.04	16,495.45	1,674.72	11,567.74	9,913.46	21,481.20	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,177.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	4,233.45	22,393.86	2,209.19	15,670.13	13,166.37	28,836.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	51.00	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	3,333.71	64,858.53	147.76	45,005.65	23,334.35	68,340.00	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	25.50	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	1,554.80	27,452.20	63.00	19,035.31	10,034.69	29,070.00	0.0%
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	1.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	475.25	18,942.96	181.80	14,244.96	5,355.04	19,600.00	
W0555	Precast PC Girder Erection (20.0 ≤ W < 35.0 t)	t	34.78	15.5%	3.6%	80.9%	46.3%	53.7%	214.00	1,154.12	270.62	6,018.17	3,447.45	3,995.47	7,442.92	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									30,735.83	221,668.90	17,285.37	157,317.41	112,372.69	269,690.10	
	Components (%)									11.4%	82.2%	6.4%	58.3%	41.7%	100.0%	
	Unit Rate	each								30,771.15	221,923.62	17,305.23	157,498.19	112,501.81	270,000.00	

406(1)e Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=30m), fabricated & erected										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	18.78	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	721.70	34,256.20	4,647.90	23,124.80	16,501.00	39,625.80	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	18.41	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	751.28	7.72	3,180.73	1,704.78	2,234.96	3,939.74	
W0237	Concrete Curing (reinforced concrete)	m3	18.41	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	58.94	6.01	14.03	11.02	67.96	78.98	
W0241	Formwork (reinforced concrete H<4m)	m2	94.89	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	12,855.58	8,515.51	168.94	624.28	20,915.75	21,540.03	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	1,156.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	4,169.45	20,772.05	2,108.90	14,566.78	12,483.62	27,050.40	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,471.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	5,290.92	27,987.57	2,761.02	19,584.34	16,455.16	36,039.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	61.20	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	4,000.45	77,830.24	177.31	54,006.78	28,001.22	82,008.00	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	61.20	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	3,731.52	65,885.27	151.20	45,684.74	24,083.26	69,768.00	
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0556	Precast PC Girder Erection (35.0 ≤ W < 60.0 t)	t	46.03	7.5%	1.8%	90.8%	50.5%	49.5%	378.00	1,296.73	309.35	15,793.26	8,778.36	8,620.98	17,399.34	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									38,814.99	311,843.30	30,293.50	225,641.43	155,310.36	380,951.79	
	Components (%)									10.2%	81.9%	8.0%	59.2%	40.8%	100.0%	
	Unit Rate	each								38,819.90	311,882.77	30,297.33	225,669.99	155,330.01	381,000.00	

406(1)f Precast Prestressed Structural Concrete Members (AASHTO Girder Type IV-B L=31m), fabricated & erected										Unit:		1.00 each				
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	19.36	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	743.99	35,314.17	4,791.44	23,838.98	17,010.62	40,849.60	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	18.98	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	774.54	7.96	3,279.21	1,757.57	2,304.15	4,061.72	
W0237	Concrete Curing (reinforced concrete)	m3	18.98	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	60.76	6.20	14.46	11.36	70.06	81.42	
W0241	Formwork (reinforced concrete H<4m)	m2	97.95	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	13,270.14	8,790.12	174.39	644.41	21,590.24	22,234.65	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	1,199.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	4,324.54	21,544.71	2,187.35	15,108.63	12,947.97	28,056.60	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,452.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	5,222.58	27,626.07	2,725.35	19,331.38	16,242.62	35,574.00	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	63.24	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	4,133.80	80,424.58	183.22	55,807.01	28,934.59	84,741.60	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	63.24	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	3,855.91	68,081.45	156.24	47,207.56	24,886.04	72,093.60	
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0556	Precast PC Girder Erection (35.0 ≤ W < 60.0 t)	t	47.45	7.5%	1.8%	90.8%	50.5%	49.5%	378.00	1,336.73	318.90	16,280.47	9,049.17	8,886.93	17,936.10	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									39,661.41	318,387.62	31,082.35	230,311.62	158,819.67	389,131.29	
	Components (%)									10.2%	81.8%	8.0%	59.2%	40.8%	100.0%	
	Unit Rate	each								39,648.03	318,280.10	31,071.86	230,233.91	158,766.09	389,000.00	

## 406(i)g Precast Prestressed Structural Concrete Members (AASHTO Girder Type V L=29.4m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	21.52	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	826.99	39,254.18	5,326.02	26,498.70	18,908.50	45,407.20	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	21.10	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	861.05	8.85	3,645.49	1,953.88	2,561.52	4,515.40	
W0237	Concrete Curing (reinforced concrete)	m3	21.10	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	67.55	6.89	16.08	12.63	77.89	90.52	
W0241	Formwork (reinforced concrete H<4m)	m2	116.31	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	15,757.53	10,437.76	207.08	765.20	25,637.17	26,402.37	0.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	0.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	0.00	0.00	0.00	0.00	0.00	0.00	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	4,387.67	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	15,781.64	83,480.78	8,235.50	58,415.79	49,082.13	107,497.92	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	59.98	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	3,920.70	76,278.72	173.78	52,930.17	27,443.03	80,373.20	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	59.98	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	3,657.14	64,571.87	148.19	44,774.03	23,603.17	68,377.20	0.0%
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0556	Precast PC Girder Erection (35.0 ≤ W < 60.0 t)	t	52.75	7.5%	1.8%	90.8%	50.5%	49.5%	378.00	1,486.04	354.52	18,098.94	10,059.93	9,879.57	19,939.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									48,297.08	350,666.94	37,141.29	252,965.89	183,139.42	436,105.31	
	Components (%)									11.1%	80.4%	8.5%	58.0%	42.0%	100.0%	
	Unit Rate	each								48,285.41	350,582.26	37,132.32	252,904.80	183,095.20	436,000.00	

## 406(i)h Precast Prestressed Structural Concrete Member (AASHTO Girder Type V L=29.55m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	21.62	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	830.84	39,436.59	5,350.77	26,621.84	18,996.36	45,618.20	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	21.20	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	865.14	8.90	3,662.77	1,963.14	2,573.66	4,536.80	
W0237	Concrete Curing (reinforced concrete)	m3	21.20	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	67.87	6.92	16.15	12.69	78.26	90.95	
W0241	Formwork (reinforced concrete H<4m)	m2	116.92	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	15,840.17	10,492.50	208.16	769.22	25,771.62	26,540.84	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	0.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	0.00	0.00	0.00	0.00	0.00	0.00	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	4,396.75	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	15,814.28	83,653.44	8,252.54	58,536.60	49,183.65	107,720.25	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	60.28	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	3,940.31	76,660.24	174.65	53,194.91	27,580.29	80,775.20	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	2.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	986.31	37,837.27	376.42	28,460.41	10,739.59	39,200.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	60.28	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	3,675.43	64,894.84	148.93	44,997.98	23,721.22	68,719.20	
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0556	Precast PC Girder Erection (35.0 ≤ W < 60.0 t)	t	53.00	7.5%	1.8%	90.8%	50.5%	49.5%	378.00	1,493.09	356.20	18,184.72	10,107.61	9,926.39	20,034.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									48,465.55	351,782.99	37,288.90	253,759.53	183,777.91	437,537.44	
	Components (%)									11.1%	80.4%	8.5%	58.0%	42.0%	100.0%	
	Unit Rate	each								48,516.78	352,154.89	37,328.32	254,027.81	183,972.19	438,000.00	

406(1)i Precast Prestressed Structural Concrete Members (AASHTO Girder Type V L=33.5m), fabricated & erected										Unit: 1.00 each						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	24.26	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	932.29	44,252.16	6,004.15	29,872.61	21,315.99	51,188.60	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	23.78	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	970.42	9.98	4,108.52	2,202.05	2,886.87	5,088.92	
W0237	Concrete Curing (reinforced concrete)	m3	23.78	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	76.13	7.77	18.12	14.24	87.78	102.02	
W0241	Formwork (reinforced concrete H<4m)	m2	132.80	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	17,991.58	11,917.59	236.44	873.69	29,271.91	30,145.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	1,975.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	7,123.42	35,488.57	3,603.01	24,887.02	21,327.98	46,215.00	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,612.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	5,798.07	30,670.27	3,025.67	21,461.56	18,032.44	39,494.00	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	102.51	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	6,700.75	130,365.65	297.00	90,461.36	46,902.04	137,363.40	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	3.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	1,479.47	56,755.90	564.63	42,690.61	16,109.39	58,800.00	
W0535	PC Strand (8-T12.7, 150t) Installation for Precast PC Girder	m	68.34	6.0%	93.8%	0.2%	64.9%	35.1%	935.00	3,837.19	59,921.81	138.91	41,496.25	22,401.65	63,897.90	
W0545	PC Strand (8-T12.7, 150t) Tensioning for Precast PC Girder	cable	2.00	3.0%	95.9%	1.1%	72.2%	27.8%	14,600.00	882.95	28,005.25	311.79	21,082.41	8,117.59	29,200.00	
W0556	Precast PC Girder Erection (35.0 ≤ W < 60.0 t)	t	59.45	7.5%	1.8%	90.8%	50.5%	49.5%	378.00	1,674.79	399.54	20,397.76	11,337.68	11,134.42	22,472.10	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										51,468.68	398,344.67	39,256.19	286,984.69	202,084.85	489,069.54	
Components (%)										10.5%	81.4%	8.0%	58.7%	41.3%	100.0%	
Unit Rate										51,461.36	398,288.03	39,250.61	286,943.88	202,056.12	489,000.00	

406(1) Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=35m), fabricated & erected										Unit: 1.00 each						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	27.33	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,050.27	49,852.08	6,763.95	33,652.86	24,013.44	57,666.30	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	26.79	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,093.25	11.24	4,628.56	2,480.78	3,252.28	5,733.06	
W0237	Concrete Curing (reinforced concrete)	m3	26.79	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	85.77	8.75	20.41	16.04	98.89	114.93	
W0241	Formwork (reinforced concrete H<4m)	m2	154.83	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	20,976.17	13,894.58	275.66	1,018.63	34,127.78	35,146.41	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	1,936.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	6,982.75	34,787.79	3,531.86	24,395.58	20,906.82	45,302.40	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,677.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	6,031.86	31,906.97	3,147.67	22,326.95	18,759.55	41,086.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	107.10	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	7,000.79	136,202.91	310.30	94,511.87	49,002.13	143,514.00	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	3.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	1,479.47	56,755.90	564.63	42,690.61	16,109.39	58,800.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	71.40	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	4,353.44	76,866.15	176.40	53,298.86	28,097.14	81,396.00	
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0557	Precast PC Girder Erection (60.0 ≤ W < 75.0 t)	t	66.98	6.3%	1.8%	91.9%	51.1%	48.9%	424.00	1,797.96	510.02	26,091.54	14,503.37	13,896.15	28,399.52	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										55,803.85	439,232.50	46,424.78	317,990.68	223,470.44	541,461.12	
Components (%)										10.3%	81.1%	8.6%	58.7%	41.3%	100.0%	
Unit Rate										55,756.32	438,858.44	46,385.24	317,719.87	223,280.13	541,000.00	

406(1)k Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI L=36m), fabricated & erected										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	28.04	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,077.55	51,147.18	6,939.67	34,527.12	24,637.28	59,164.40	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	27.49	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,121.82	11.54	4,749.51	2,545.60	3,337.26	5,882.86	
W0237	Concrete Curing (reinforced concrete)	m3	27.49	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	88.01	8.98	20.95	16.46	101.47	117.93	
W0241	Formwork (reinforced concrete H<4m)	m2	159.31	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	21,583.12	14,296.62	283.63	1,048.10	35,115.27	36,163.37	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	2,017.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	7,274.90	36,243.27	3,679.63	25,416.26	21,781.54	47,197.80	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,721.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	6,190.12	32,744.12	3,230.26	22,912.74	19,251.76	42,164.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	110.16	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	7,200.81	140,094.43	319.16	97,212.20	50,402.20	147,614.40	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	3.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	1,479.47	56,755.90	564.63	42,690.61	16,109.39	58,800.00	
W0536	PC Strand (10-T12.7, 190t) Installation for Precast PC Girder	m	73.44	5.3%	94.4%	0.2%	65.5%	34.5%	1,140.00	4,477.83	79,062.33	181.44	54,821.69	28,899.91	83,721.60	0.0%
W0546	PC Strand (10-T12.7, 190t) Tensioning for Precast PC Girder	cable	2.00	2.4%	96.6%	0.9%	72.7%	27.3%	19,600.00	950.49	37,885.91	363.59	28,489.93	10,710.07	39,200.00	
W0557	Precast PC Girder Erection (60.0 ≤ W < 75.0 t)	t	68.73	6.3%	1.8%	91.9%	51.1%	48.9%	424.00	1,844.94	523.35	26,773.24	14,882.30	14,259.22	29,141.52	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										57,290.67	449,323.80	47,655.91	325,168.23	229,102.15	554,270.38	
Components (%)										10.3%	81.1%	8.6%	58.7%	41.3%	100.0%	
Unit Rate			each							57,262.73	449,104.61	47,632.66	325,009.61	228,990.39	554,000.00	

406(1)l Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.4m), fabricated & erected										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	32.18	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,236.65	58,698.86	7,964.29	39,624.92	28,274.88	67,899.80	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	31.55	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,287.50	13.24	5,450.96	2,921.56	3,830.14	6,751.70	
W0237	Concrete Curing (reinforced concrete)	m3	31.55	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	101.01	10.30	24.04	18.89	116.46	135.35	
W0241	Formwork (reinforced concrete H<4m)	m2	188.02	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	25,472.71	16,873.08	334.75	1,236.98	41,443.56	42,680.54	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	4,298.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	15,502.00	77,230.32	7,840.88	54,159.19	46,414.01	100,573.20	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	3,674.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	13,214.70	69,902.33	6,895.97	48,914.25	41,098.75	90,013.00	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	200.94	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	13,134.81	255,542.61	582.18	177,322.26	91,937.34	269,259.60	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	5.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	2,465.78	94,593.17	941.05	71,151.02	26,848.98	98,000.00	
W0558	Precast PC Girder Erection (75.0 ≤ W < 80.0 t)	t	78.88	5.8%	1.8%	92.4%	51.3%	48.7%	431.00	1,979.22	613.25	31,404.81	17,441.68	16,555.60	33,997.28	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										78,395.99	574,027.36	61,989.12	413,395.97	301,016.50	714,412.47	
Components (%)										11.0%	80.3%	8.7%	57.9%	42.1%	100.0%	
Unit Rate			each							78,350.73	573,695.94	61,953.33	413,157.29	300,842.71	714,000.00	



## 406(1) Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=39.55m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	32.29	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,240.88	58,899.51	7,991.51	39,760.37	28,371.53	68,131.90	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	31.66	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,291.99	13.28	5,469.96	2,931.75	3,843.49	6,775.24	
W0237	Concrete Curing (reinforced concrete)	m3	31.66	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	101.36	10.34	24.12	18.95	116.87	135.82	
W0241	Formwork (reinforced concrete K(4m)	m2	188.74	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	25,570.26	16,937.69	336.03	1,241.72	41,602.26	42,843.98	0.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	4,386.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	15,819.39	78,811.59	8,001.42	55,268.08	47,364.32	102,632.40	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	3,572.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	12,847.82	67,961.66	6,704.52	47,556.26	39,957.74	87,514.00	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	201.71	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	13,185.14	256,521.85	584.41	178,001.76	92,289.64	270,291.40	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	5.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	2,465.78	94,593.17	941.05	71,151.02	26,848.98	98,000.00	
W0558	Precast PC Girder Erection (75.0 ≤ W < 80.0 t)	t	79.15	5.8%	1.8%	92.4%	51.3%	48.7%	431.00	1,986.00	615.35	31,512.31	17,501.38	16,612.27	34,113.65	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									78,510.24	574,914.62	62,115.53	414,036.50	301,503.89	715,540.39	
	Components (%)									11.0%	80.3%	8.7%	57.9%	42.1%	100.0%	
	Unit Rate	each								78,560.66	575,283.91	62,155.43	414,302.45	301,697.55	716,000.00	

## 406(1)n Precast Prestressed Structural Concrete Members (AASHTO Girder Type VI(mod) L=40m), fabricated &amp; erected

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0521	Precast PC Girder Fabrication Base Construction & Removal	girder	1.00	76.3%	11.8%	11.8%	13.0%	87.0%	4,650.00	3,549.62	550.19	550.19	605.21	4,044.79	4,650.00	Loss 2.0%
W0522	Precast PC Girder Fabrication Base Maintenance	girder	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	452.00	452.00	0.00	0.00	0.00	452.00	452.00	
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	32.62	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,253.56	59,501.46	8,073.18	40,166.72	28,661.48	68,828.20	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	31.98	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,305.05	13.42	5,525.25	2,961.38	3,882.34	6,843.72	
W0237	Concrete Curing (reinforced concrete)	m3	31.98	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	102.38	10.44	24.37	19.15	118.04	137.19	
W0241	Formwork (reinforced concrete K(4m)	m2	190.92	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	25,865.60	17,133.33	339.91	1,256.06	42,082.78	43,338.84	0.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	3,060.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	11,036.79	54,984.83	5,582.39	38,559.13	33,044.87	71,604.00	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	1,895.00	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	6,815.96	36,054.69	3,556.85	25,229.31	21,198.19	46,427.50	
W0537	PC Strand (12-T12.7, 225t) Installation for Precast PC Girder	m	204.00	4.9%	94.9%	0.2%	65.9%	34.1%	1,340.00	13,334.83	259,434.12	591.05	180,022.60	93,337.40	273,360.00	
W0547	PC Strand (12-T12.7, 225t) Tensioning for Precast PC Girder	cable	5.00	2.5%	96.5%	1.0%	72.6%	27.4%	19,600.00	2,465.78	94,593.17	941.05	71,151.02	26,848.98	98,000.00	
W0558	Precast PC Girder Erection (75.0 ≤ W < 80.0 t)	t	79.95	5.8%	1.8%	92.4%	51.3%	48.7%	431.00	2,006.07	621.57	31,830.81	17,678.28	16,780.17	34,458.45	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									68,187.64	522,897.21	57,015.05	377,648.85	270,451.05	648,099.90	
	Components (%)									10.5%	80.7%	8.8%	58.3%	41.7%	100.0%	
	Unit Rate	each								68,177.13	522,816.61	57,006.26	377,590.64	270,409.36	648,000.00	

## 406(1)p Precast Prestressed Structural Concrete (PC Deck Slab, 210 x 2000 x 9950mm)

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0208	Concrete (Class PP, 41MPa, max agg. 20mm)	m3	27.78	1.8%	86.4%	11.7%	58.4%	41.6%	2,110.00	1,067.56	50,672.92	6,875.32	34,206.97	24,408.83	58,615.80	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	27.24	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	1,111.62	11.43	4,706.31	2,522.45	3,306.91	5,829.36	
W0237	Concrete Curing (reinforced concrete)	m3	27.24	74.6%	7.8%	17.8%	14.0%	86.0%	4.29	87.21	8.90	20.76	16.31	100.55	116.86	
W0241	Formwork (reinforced concrete H<4m)	m2	55.63	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	7,536.68	4,992.29	99.04	365.99	12,262.02	12,628.01	
W0252	Reinforcement Grade 60, cutting, bending & assembly	kg	7,844.22	14.7%	77.7%	7.7%	54.3%	45.7%	24.50	28,214.21	149,245.88	14,723.33	104,435.00	87,748.42	192,183.42	
W0538	PC Strand (1-T15.2, 30t) Installation for Precast PC Deck Slab	m	900.00	8.3%	91.5%	0.2%	62.7%	37.3%	216.00	16,184.46	177,795.14	420.41	121,859.62	72,540.38	194,400.00	
W0548	PC Strand (1-T15.2, 30t) Tensioning for Precast PC Deck Slab	cable	90.45	4.9%	93.4%	1.7%	70.6%	29.4%	2,070.00	9,235.18	174,884.89	3,111.43	132,270.54	54,960.96	187,231.50	
W0551	Precast PC Girder Erection (W < 12.5t)	t	68.10	25.5%	3.9%	70.6%	40.8%	59.2%	219.00	3,795.60	584.57	10,533.73	6,091.01	8,822.89	14,913.90	
W0549	Secondary Concrete for Precast PC Deck Slab	m3	3.78	6.0%	75.2%	18.8%	55.3%	44.7%	2,100.00	479.97	5,969.25	1,488.78	4,392.12	3,545.88	7,938.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									67,712.49	564,165.24	41,979.11	406,160.00	267,696.85	673,656.85	
	Components (%)									10.0%	83.7%	6.2%	60.3%	39.7%	100.0%	
	Unit Rate	m2								677.27	5,642.85	419.88	4,062.46	2,677.54	6,740.00	

## 406(3)a Prestressing Steel 12-T12.7 for PC Box Girders of Angat Bridge, Longitudinal

Unit: 1,000.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0671	PC Cable Installation, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	t	1.00	11.7%	84.3%	4.1%	60.3%	39.7%	153,000.00	17,841.26	128,904.26	6,254.48	92,268.41	60,731.59	153,000.00	
W0672	PC Cable Anchorage, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	each	3.25	1.0%	92.4%	6.7%	70.9%	29.1%	12,900.00	400.76	38,729.24	2,795.00	29,745.68	12,179.32	41,925.00	
W0673	PC Cable Tensioning, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	each	3.25	6.4%	87.4%	6.2%	68.3%	31.7%	9,570.00	1,991.28	27,195.18	1,916.05	21,229.76	9,872.74	31,102.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									20,233.29	194,828.68	10,965.53	143,243.85	82,783.65	226,027.50	
	Components (%)									9.0%	86.2%	4.9%	63.4%	36.6%	100.0%	
	Unit Rate	kg								20.23	194.80	10.96	143.23	82.77	226.00	

Total weight of PC cables = 106,536.0 kg

Total numbers of cables = 346

## 406(3)b Prestressing Steel 5-T12.7 for PC Box Girders of Angat Bridge, Transversal in Top Slab

Unit: 1,000.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0676	PC Cable Installation, (5-T12.7, 90t) for PC Box Girder (Transversal)	t	1.00	11.4%	84.5%	4.1%	60.5%	39.5%	153,000.00	17,436.27	129,296.20	6,267.53	92,549.79	60,450.21	153,000.00	
W0677	PC Cable Anchorage, (5-T12.7, 90t) for PC Box Girder (Transversal)	each	26.77	5.1%	86.6%	8.3%	67.0%	33.0%	1,680.00	2,300.12	38,961.37	3,712.11	30,149.05	14,824.55	44,973.60	
W0678	PC Cable Tensioning, (5-T12.7, 90t) for PC Box Girder (Transversal)	each	26.77	40.5%	23.3%	36.3%	34.4%	65.6%	829.00	8,977.63	5,166.06	8,048.64	7,624.62	14,567.71	22,192.33	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									28,714.03	173,423.63	18,028.27	130,323.46	89,842.47	220,165.93	
	Components (%)									13.0%	78.8%	8.2%	59.2%	40.8%	100.0%	
	Unit Rate	kg								28.69	173.29	18.01	130.23	89.77	220.00	

Total weight of PC cables = 28,992.0 kg

Total numbers of cables = 776

## 406(3)c Prestressing Bar 432mm for PC Box Girders of Angat Bridge, Transversal in Diaphragms

Unit: 1,000.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0681	PC Bar Installation, (1-φ32mm) for PC Box Girder (Transversal)	t	1.00	5.8%	91.0%	3.2%	64.8%	35.2%	158,000.00	9,132.38	143,738.86	5,128.77	102,327.51	55,672.49	158,000.00	
W0682	PC Bar Anchorage, (1-φ32mm) for PC Box Girder (Transversal)	each	29.12	2.5%	92.0%	5.5%	70.4%	29.6%	1,820.00	1,316.56	48,757.79	2,924.05	37,299.36	15,699.04	52,998.40	
W0683	PC Bar Tensioning, (φ32mm) for PC Box Girder (Transversal)	each	29.12	16.6%	71.2%	12.2%	59.7%	40.3%	1,800.00	8,690.46	37,328.61	6,396.92	31,287.69	21,128.31	52,416.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									19,139.40	229,825.27	14,449.74	170,914.55	92,499.85	263,414.40	
	Components (%)									7.3%	87.2%	5.5%	64.9%	35.1%	100.0%	
	Unit Rate	kg								19.11	229.46	14.43	170.65	92.35	263.00	

Total weight of PC cables = 4,669.8 kg

Total numbers of cables = 136

406(3)d Prestressing Bar  $\phi$ 32mm for PC Box Girders of Angat Bridge, Vertical in Webs

Unit: 1,000.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0686	PC Bar Installation, (1- $\phi$ 32mm) for PC Box Girder (Vertical in Web)	t	1.00	5.8%	91.0%	3.2%	64.8%	35.2%	158,000.00	9,132.38	143,738.86	5,128.77	102,327.51	55,672.49	158,000.00	
W0687	PC Bar Anchorage, (1- $\phi$ 32mm) for PC Box Girder (Vertical in Web)	each	61.38	2.5%	92.0%	5.5%	70.4%	29.6%	1,820.00	2,775.08	102,773.13	6,163.40	78,620.69	33,090.91	111,711.60	
W0688	PC Bar Tensioning, (1- $\phi$ 32mm) for PC Box Girder (Vertical in Web)	each	61.38	16.6%	71.2%	12.2%	59.7%	40.3%	1,800.00	18,318.02	78,682.36	13,483.62	65,949.11	44,534.89	110,484.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									30,225.47	325,194.34	24,775.79	246,897.32	133,298.28	380,195.60	
	Components (%)									7.9%	85.5%	6.5%	64.9%	35.1%	100.0%	
	Unit Rate	kg								30.21	325.03	24.76	246.77	133.23	380.00	
Total weight of PC tendons =				5,473.8 kg					Total numbers of tendons =					336		

Total weight of PC tendons = 5,473.8 kg

Total numbers of tendons = 336

## 406(3)e Prestressing Steel 12-T12.7 for PC Hollow Slab Bridge for Burgul Ramp C, Longitudinal

Unit: 1,000.00 kg

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0671	PC Cable Installation, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	t	1.00	11.7%	84.3%	4.1%	60.3%	39.7%	153,000.00	17,841.26	128,904.26	6,254.48	92,268.41	60,731.59	153,000.00	
W0672	PC Cable Anchorage, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	each	1.42	1.0%	92.4%	6.7%	70.9%	29.1%	12,900.00	175.10	16,921.70	1,221.20	12,996.58	5,321.42	18,318.00	
W0673	PC Cable Tensioning, (12-T12.7, 225t) for PC Box Girder (Longitudinal)	each	1.42	6.4%	87.4%	6.2%	68.3%	31.7%	9,570.00	870.03	11,882.20	837.17	9,275.77	4,313.63	13,589.40	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									18,886.39	157,708.16	8,312.85	114,540.75	70,366.65	184,907.40	
	Components (%)									10.2%	85.3%	4.5%	61.9%	38.1%	100.0%	
	Unit Rate	kg								18.90	157.79	8.32	114.60	70.40	185.00	
Total weight of PC cables =			14,114.8 kg	Total numbers of cables =		20										

Total weight of PC cables = 14,114.8 kg

Total numbers of cables = 20

## 407(1)a Elastomeric Bearing Pad, Duro 60 (400x300x50mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
W09001	Laminated Elastomeric Bearing Pad (400x300x50mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	11,000.00	0.00	110,000.00	0.00	71,500.00	38,500.00	110,000.00	
W02011	Structural Steel (Round Bar, SS400)	kg	0.00	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	0.00	0.00	0.00	0.00	0.00	
W02015	Structural Steel (Plates, SS400)	kg	0.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	0.00	0.00	0.00	0.00	0.00	
W02001	Reinforcing Bars, Grade 40	kg	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	0.00	0.00	0.00	0.00	0.00	
W09013	Elastomeric Pad (t=50mm)	m2	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	906.21	1,359.32	1,246.04	1,019.49	2,265.53	2.0%
	Total									3,276.40	110,906.21	1,359.32	72,746.04	42,795.89	115,541.93	
	Components (%)									2.8%	96.0%	1.2%	63.0%	37.0%	100.0%	
	Unit Rate	each								328.94	11,134.59	136.47	7,303.44	4,296.56	11,600.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

## 407(1)b Elastomeric Bearing Pad, Duro 60 (600x300x50mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
W09002	Laminated Elastomeric Bearing Pad (600x300x50mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	15,800.00	0.00	158,000.00	0.00	102,700.00	55,300.00	158,000.00	
W02011	Structural Steel (Round Bar, SS400)	kg	216.00	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	4,708.80	0.00	3,296.16	1,412.64	4,708.80	
W02015	Structural Steel (Plates, SS400)	kg	92.30	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	1,864.46	0.00	1,305.12	559.34	1,864.46	
W02001	Reinforcing Bars, Grade 40	kg	16.60	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	265.60	0.00	172.64	92.96	265.60	
W09013	Elastomeric Pad (t=50mm)	m2	0.79	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	20,303.00	0.00	13,196.95	7,106.05	20,303.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	1,507.35	2,261.02	2,072.60	1,695.76	3,768.37	2.0%
	Total									3,276.40	186,649.21	2,261.02	122,743.47	69,443.15	192,186.63	
	Components (%)									1.7%	97.1%	1.2%	63.9%	36.1%	100.0%	
	Unit Rate	each								327.32	18,646.80	225.88	12,262.43	6,937.57	19,200.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(i)c Elastomeric Bearing Pad, Duro 60 (600x350x50mm)				Unit: 10.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
M09003	Laminated Elastomeric Bearing Pad (600x350x50mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	18,400.00	0.00	184,000.00	0.00	119,600.00	64,400.00	184,000.00	
M02011	Structural Steel (Round Bar, SS400)	kg	212.30	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	4,628.14	0.00	3,239.70	1,388.44	4,628.14	
M02015	Structural Steel (Plates, SS400)	kg	172.90	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	3,492.58	0.00	2,444.81	1,047.77	3,492.58	
M02001	Reinforcing Bars, Grade 40	kg	47.90	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	766.40	0.00	498.16	268.24	766.40	
M09013	Elastomeric Pad (t=50mm)	m2	0.56	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	14,392.00	0.00	9,354.80	5,037.20	14,392.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	1,684.44	2,526.67	2,316.11	1,895.00	4,211.11	2.0%
	Total									3,278.40	208,963.56	2,526.67	137,453.57	77,313.06	214,766.63	
	Components (%)									1.5%	97.3%	1.2%	64.0%	36.0%	100.0%	
	Unit Rate	each								328.00	20,919.06	252.94	13,760.29	7,739.71	21,500.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(i)d Elastomeric Bearing Pad, Duro 60 (600x700x89mm)				Unit: 10.00 each													
Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40		
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00		
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00		
M09004	Laminated Elastomeric Bearing Pad (600x700x89mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	66,600.00	0.00	666,000.00	0.00	432,900.00	233,100.00	666,000.00		
M02011	Structural Steel (Round Bar, SS400)	kg	2,882.30	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	62,834.14	0.00	43,983.90	18,850.24	62,834.14		
M02015	Structural Steel (Plates, SS400)	kg	2,330.60	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	47,078.12	0.00	32,954.68	14,123.44	47,078.12		
M02001	Reinforcing Bars, Grade 40	kg	177.60	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	2,841.60	0.00	1,847.04	994.56	2,841.60		
M09013	Elastomeric Pad (t=50mm)	m2	2.06	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	52,942.00	0.00	34,412.30	18,529.70	52,942.00		
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	6,679.78	10,019.67	9,184.69	7,514.75	16,699.45	2.0%	
	Total									3,276.40	838,375.64	10,019.67	555,282.62	296,389.09	851,671.71		
	Components (%)									0.4%	98.4%	1.2%	65.2%	34.8%	100.0%		
	Unit Rate	each								327.77	83,869.88	1,002.35	55,549.67	29,650.33	85,200.00		

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(i)e Elastomeric Bearing Pad, Duro 60 (600x400x60mm)										Unit: 10.00 each						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
M09005	Laminated Elastomeric Bearing Pad (600x400x50mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	25,300.00	0.00	253,000.00	0.00	164,450.00	88,550.00	253,000.00	
M02011	Structural Steel (Round Bar, SS400)	kg	994.20	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	21,673.56	0.00	15,171.49	6,502.07	21,673.56	
M02015	Structural Steel (Plates, SS400)	kg	135.60	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	2,739.12	0.00	1,917.38	821.74	2,739.12	
M02001	Reinforcing Bars, Grade 40	kg	22.20	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	355.20	0.00	230.88	124.32	355.20	
M09013	Elastomeric Pad (t=50mm)	m2	0.53	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	13,621.00	0.00	8,853.65	4,767.35	13,621.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	2,357.32	3,535.98	3,241.32	2,651.99	5,893.31	
	Total									3,276.40	293,746.20	3,535.98	193,864.72	106,693.86	300,558.59	
	Components (%)									1.1%	97.7%	1.2%	64.5%	35.5%	100.0%	
	Unit Rate	each								328.12	29,417.76	354.12	19,414.94	10,685.06	30,100.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(1)f Elastomeric Bearing Pad, Duro 60 (450x300x60mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
M09006	Laminated Elastomeric Bearing Pad (450x300x60mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	14,200.00	0.00	142,000.00	0.00	92,300.00	49,700.00	142,000.00	
M02011	Structural Steel (Round Bar, SS400)	kg	1,315.30	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	28,673.54	0.00	20,071.48	8,602.06	28,673.54	
M02015	Structural Steel (Plates, SS400)	kg	300.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	6,060.00	0.00	4,242.00	1,818.00	6,060.00	
M02001	Reinforcing Bars, Grade 40	kg	336.70	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	5,387.20	0.00	3,501.68	1,885.52	5,387.20	
M09013	Elastomeric Pad (t=50mm)	m2	0.83	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	21,331.00	0.00	13,865.15	7,465.85	21,331.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	1,653.83	2,480.74	2,274.01	1,860.55	4,134.56	
	Total									3,276.40	205,105.57	2,480.74	136,254.32	74,608.39	210,862.70	
	Components (%)									1.6%	97.3%	1.2%	64.6%	35.4%	100.0%	
	Unit Rate	each								327.85	20,523.91	248.24	13,634.30	7,465.70	21,100.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(1)g Elastomeric Bearing Pad, Duro 60 (550x300x50mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
M09007	Laminated Elastomeric Bearing Pad (550x300x50mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	14,500.00	0.00	145,000.00	0.00	94,250.00	50,750.00	145,000.00	
M02011	Structural Steel (Round Bar, SS400)	kg	0.00	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	0.00	0.00	0.00	0.00	0.00	
M02015	Structural Steel (Plates, SS400)	kg	0.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	0.00	0.00	0.00	0.00	0.00	
M02001	Reinforcing Bars, Grade 40	kg	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	0.00	0.00	0.00	0.00	0.00	
M09013	Elastomeric Pad (t=50mm)	m2	0.00	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	1,186.21	1,779.32	1,631.04	1,334.49	2,965.53	
	Total									3,276.40	146,186.21	1,779.32	95,881.04	55,360.89	151,241.93	
	Components (%)									2.2%	96.7%	1.2%	63.4%	36.6%	100.0%	
	Unit Rate	each								327.12	14,595.24	177.65	9,572.77	5,527.23	15,100.00	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(1)h Elastomeric Bearing Pad, Duro 60 (500x400x60mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	806.40	0.00	0.00	0.00	806.40	806.40	
L019	Skilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	902.00	0.00	0.00	0.00	902.00	902.00	
L020	Unskilled Labor	md	4.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,568.00	0.00	0.00	0.00	1,568.00	1,568.00	
M09008	Laminated Elastomeric Bearing Pad (500x400x60mm)	each	10.00	0.0%	100.0%	0.0%	65.0%	35.0%	21,100.00	0.00	211,000.00	0.00	137,150.00	73,850.00	211,000.00	
M02011	Structural Steel (Round Bar, SS400)	kg	1,315.30	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	28,673.54	0.00	20,071.48	8,602.06	28,673.54	
M02015	Structural Steel (Plates, SS400)	kg	300.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	6,060.00	0.00	4,242.00	1,818.00	6,060.00	
M02001	Reinforcing Bars, Grade 40	kg	336.70	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	5,387.20	0.00	3,501.68	1,885.52	5,387.20	
M09013	Elastomeric Pad (t=50mm)	m2	0.83	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	21,331.00	0.00	13,865.15	7,465.85	21,331.00	
	Miscellaneous	LS	1.00	0.0%	40.0%	60.0%	55.0%	45.0%		0.00	2,205.83	3,308.74	3,033.01	2,481.55	5,514.56	
	Total									3,276.40	274,657.57	3,308.74	181,863.32	99,379.39	281,242.70	
	Components (%)									1.2%	97.7%	1.2%	64.7%	35.3%	100.0%	
	Unit Rate	each								327.36	27,465.76	330.59	18,186.33	9,937.94	28,124.70	

Miscellaneous covers the cost for welding equipment, welding rods, minor tools, etc.

407(2)a Expansion Joint, Multiflex M80 (Elastomeric)			Unit: 100.00 m													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00	
L019	Skilled labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00	
L020	Unskilled labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M09200	Expansion joint, Multiflex 80	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	64,600.00	0.00	6,460,000.00	0.00	4,199,000.00	2,261,000.00	6,460,000.00	
W0225	Grout (non-shrink)	m3	0.36	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	10.67	1,058.99	28.34	672.65	425.35	1,098.00	
M07021	Asphalt Mixture	t	2.54	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	6,350.00	0.00	4,127.50	2,222.50	6,350.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		12,943.46	38,830.39	77,660.78	71,189.05	58,245.59	129,434.64	
	Total									17,238.13	6,506,239.38	77,689.13	4,274,989.21	2,326,177.43	6,601,166.64	
	Components (%)									0.3%	98.6%	1.2%	64.8%	35.2%	100.0%	
	Unit Rate	m								172.35	65,050.90	776.75	42,742.34	23,257.66	66,000.00	

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

407(2)b Expansion Joint, Multiflex M100 (Elastomeric)				Unit: 100.00 m												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00	
L019	Skilled Labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M09201	Expansion Joint, Multiflex 100	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	74,400.00	0.00	7,440,000.00	0.00	4,836,000.00	2,604,000.00	7,440,000.00	
W0225	Grout (non-shrink)	m3	0.39	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	11.56	1,147.24	30.70	728.71	460.79	1,189.50	
M07021	Asphalt Mixture	t	2.96	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	7,400.00	0.00	4,810.00	2,590.00	7,400.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		14,905.75	44,717.24	89,434.48	81,981.61	67,075.86	149,057.47	
	Total									19,201.30	7,493,264.48	89,465.19	4,923,520.32	2,678,410.65	7,601,930.97	
	Components (%)									0.3%	98.6%	1.2%	64.8%	35.2%	100.0%	
	Unit Rate	m								191.96	74,913.61	894.42	49,222.70	26,777.30	76,000.00	

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

407(2)c Expansion Joint, Multiflex M140 (Elastomeric)				Unit: 100.00 m												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00	
L019	Skilled labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M09202	Expansion Joint, Multiflex 140	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	93,800.00	0.00	9,380,000.00	0.00	6,097,000.00	3,283,000.00	9,380,000.00	
W0225	Grout (non-shrink)	m3	0.82	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	24.30	2,412.15	64.56	1,532.16	968.84	2,501.00	
M07021	Asphalt Mixture	t	4.28	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	10,700.00	0.00	6,955.00	3,745.00	10,700.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		18,794.97	56,384.91	112,769.82	103,372.34	84,577.37	187,949.70	
	Total									23,103.27	9,449,497.06	112,834.38	6,208,859.49	3,376,575.21	9,585,434.70	
	Components (%)									0.2%	98.6%	1.2%	64.8%	35.2%	100.0%	
	Unit Rate	m								231.14	94,539.98	1,128.88	62,118.17	33,781.83	95,900.00	

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

407(2)d Expansion Joint, Multiflex M160 (Elastomeric)										Unit: 100.00 m						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00	
L019	Skilled Labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M09203	Expansion Joint, Multiflex 160	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	107,000.00	0.00	10,700,000.00	0.00	6,955,000.00	3,745,000.00	10,700,000.00	
W0225	Grout (non-shrink)	m3	0.54	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	16.00	1,588.49	42.51	1,008.98	638.02	1,647.00	
M07021	Asphalt Mixture	t	3.85	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	9,625.00	0.00	6,256.25	3,368.75	9,625.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		21,431.11	64,293.34	128,586.67	117,871.12	96,440.00	214,311.12	
	Total									25,731.11	10,775,506.82	128,629.18	7,080,136.35	3,849,730.77	10,929,867.12	
	Components (%)									0.2%	98.6%	1.2%	64.8%	35.2%	100.0%	
	Unit Rate	m								256.61	107,460.62	1,282.78	70,607.89	38,392.11	109,000.00	

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

## 407(2)e Expansion Joint, Multiflex M200 (Elastomeric)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00		
L019	Skilled Labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00		
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00		
M09204	Expansion Joint, MultiFlex 200	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	122,000.00	0.00	12,200,000.00	0.00	7,930,000.00	4,270,000.00	12,200,000.00		
M0225	Grout (non-shrink)	m3	1.60	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	47.41	4,706.63	125.96	2,989.58	1,890.42	4,880.00		
M07021	Asphalt Mixture	t	4.18	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	10,450.00	0.00	6,792.50	3,657.50	10,450.00		
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		24,439.23	73,317.68	146,635.37	134,415.75	109,976.53	244,392.28	2.0%	
	Total									28,770.64	12,288,474.31	146,761.33	8,074,197.83	4,389,808.45	12,464,006.28		
	Components (%)									0.2%	98.6%	1.2%	64.8%	35.2%	100.0%		
	Unit Rate	m								288.54	123,239.61	1,471.85	80,975.15	44,024.85	125,000.00		

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

## 407(2)f Expansion Joint, Multiflex M330 (Elastomeric)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	864.00	0.00	0.00	0.00	864.00	864.00	
L019	Skilled Labor	md	6.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	2,460.00	0.00	0.00	0.00	2,460.00	2,460.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M09206	Expansion Joint, Multiflex 330	m	100.00	0.0%	100.0%	0.0%	65.0%	35.0%	250,000.00	0.00	25,000,000.00	0.00	16,250,000.00	8,750,000.00	25,000,000.00	
M0225	Grout (non-shrink)	m3	2.21	1.0%	96.4%	2.6%	61.3%	38.7%	3,050.00	65.48	6,501.03	173.99	4,129.35	2,611.15	6,740.50	
M07021	Asphalt Mixture	t	5.64	0.0%	100.0%	0.0%	65.0%	35.0%	2,500.00	0.00	14,100.00	0.00	9,165.00	4,935.00	14,100.00	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	55.0%	45.0%		50,050.25	150,150.75	300,301.49	275,276.37	225,226.12	500,502.49	2.0%
	Total									54,399.73	25,170,751.78	300,475.48	16,538,570.72	8,987,056.27	25,525,626.99	
	Components (%)									0.2%	98.6%	1.2%	64.8%	35.2%	100.0%	
	Unit Rate	m								543.45	251,454.81	3,001.74	165,219.66	89,780.34	255,000.00	

Miscellaneous covers the cost for chipping, surface preparation, minor tools, etc.

## 407(2)g Expansion Joint, 30mm for bridge sidewalk

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L019	Skilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	656.00	0.00	0.00	0.00	656.00	656.00	
L020	Unskilled Labor	md	1.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	512.00	0.00	0.00	0.00	512.00	512.00	
M07104	Joint Filler (bituminous t=20mm)	m2	7.50	0.0%	100.0%	0.0%	60.0%	40.0%	571.00	0.00	4,282.50	0.00	2,569.50	1,713.00	4,282.50	
M07117	Joint Sealant (liquid type)	kg	91.80	0.0%	100.0%	0.0%	60.0%	40.0%	96.20	0.00	8,831.16	0.00	5,298.70	3,532.46	8,831.16	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	55.0%	45.0%		0.00	44.23	103.20	81.08	66.34	147.42	1.0%
	Total									1,628.80	13,157.89	103.20	7,949.28	6,940.61	14,889.88	
	Components (%)									10.9%	88.4%	0.7%	53.4%	46.6%	100.0%	
	Unit Rate	m								16.30	131.67	1.03	79.55	69.45	149.00	

Miscellaneous covers the cost for minor materials, minor tools, etc.

SPL 407(3)a Restraining Bar  $\phi 32 \times 1495$ mm

Unit: 10.00 each

Unit Price			Restraining Bar #32 x 1450mm			Unit Price			10.00 Each								
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks	
				Component (%)						Component (PP)							
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
L002	Foreman	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	345.60	0.00	0.00	0.00	345.60	345.60		
L009	Welder	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	1,527.00	0.00	0.00	0.00	1,527.00	1,527.00		
L019	Skilled Labor	md	3.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,476.00	0.00	0.00	0.00	1,476.00	1,476.00		
L020	Unskilled Labor	md	2.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	704.00	0.00	0.00	0.00	704.00	704.00		
M09313	PC Tendon, $\phi 32$	kg	94.40	0.0%	100.0%	0.0%	70.0%	30.0%	136.00	0.00	12,838.40	0.00	8,986.88	3,851.52	12,838.40		
M08302	PVC Pipe, $\phi 50$	m	7.50	0.0%	100.0%	0.0%	50.0%	50.0%	66.70	0.00	500.25	0.00	250.13	250.13	500.25		
M09012	Elastomeric Pad (t=40mm)	m2	1.41	0.0%	100.0%	0.0%	65.0%	35.0%	20,500.00	0.00	28,905.00	0.00	18,788.25	10,116.75	28,905.00		
M02015	Structural Steel (Plates, SS400)	kg	491.40	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	9,926.28	0.00	6,948.40	2,977.88	9,926.28		
M02001	Reinforcing Bars, Grade 40	kg	63.70	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	1,019.20	0.00	662.48	356.72	1,019.20		
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	55.0%	45.0%		0.00	1,373.80	3,205.54	2,518.64	2,060.70	4,579.34	8.0%	
	Total									4,052.60	54,562.93	3,205.54	38,154.77	23,666.30	61,821.07		
	Components (%)									6.6%	88.3%	5.2%	61.7%	38.3%	100.0%		
	Unit Rate	each								405.12	5,454.43	320.44	3,814.18	2,365.82	6,180.00		

Miscellaneous covers the cost for steel cutter, welding equipment, welding rods, tensioning jack, minor tools, etc.

SPL 407(3)b Restraining Bar  $\phi$  32 x 1900mm

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	345.60	0.00	0.00	0.00	345.60	345.60	
L009	Welder	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	1,527.00	0.00	0.00	0.00	1,527.00	1,527.00	
L019	Skilled Labor	md	3.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,476.00	0.00	0.00	0.00	1,476.00	1,476.00	
L020	Unskilled Labor	md	2.23	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	704.00	0.00	0.00	0.00	704.00	704.00	
M09313	PC Tendon, $\phi$ 32	kg	118.70	0.0%	100.0%	0.0%	70.0%	30.0%	136.00	0.00	16,143.20	0.00	11,300.24	4,842.96	16,143.20	
M08302	PVC Pipe, $\phi$ 50	m	8.00	0.0%	100.0%	0.0%	50.0%	50.0%	66.70	0.00	533.60	0.00	266.80	266.80	533.60	
M09012	Elastomeric Pad (t=10mm)	m2	1.41	0.0%	100.0%	0.0%	65.0%	35.0%	20,500.00	0.00	28,905.00	0.00	18,788.25	10,116.75	28,905.00	
M02015	Structural Steel (Plates, SS400)	kg	515.10	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	10,405.02	0.00	7,283.51	3,121.51	10,405.02	
M02001	Reinforcing Bars, Grade 40	kg	64.40	0.0%	100.0%	0.0%	65.0%	35.0%	16.00	0.00	1,030.40	0.00	669.76	360.64	1,030.40	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	55.0%	45.0%		0.00	1,465.68	3,419.91	2,687.07	2,198.51	4,885.59	8.0%
Total										4,052.60	58,482.90	3,419.91	40,995.64	24,959.77	65,955.41	
Components (%)										6.1%	88.7%	5.2%	62.2%	37.8%	100.0%	
Unit Rate			each							405.53	5,852.24	342.22	4,102.34	2,497.66	6,600.00	

Miscellaneous covers the cost for steel cutter, welding equipment, welding rods, tensioning jack, minor tools, etc.

SPL 407(3)c Restraining Cable  $\phi$  65 x 4121mm (PC 7-T15.2)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.30	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	748.80	0.00	0.00	0.00	748.80	748.80	
L009	Welder	md	3.90	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	1,985.10	0.00	0.00	0.00	1,985.10	1,985.10	
L019	Skilled Labor	md	7.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	3,116.00	0.00	0.00	0.00	3,116.00	3,116.00	
L020	Unskilled Labor	md	4.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,472.00	0.00	0.00	0.00	1,472.00	1,472.00	
M09307	PC Strand, T15.2	kg	317.60	0.0%	100.0%	0.0%	70.0%	30.0%	119.00	0.00	37,794.40	0.00	26,456.08	11,338.32	37,794.40	
M09332	PC Sheath, $\phi$ 65	m	37.81	0.0%	100.0%	0.0%	65.0%	35.0%	123.00	0.00	4,650.63	0.00	3,022.91	1,627.72	4,650.63	
M09013	Elastomeric Pad (t=50mm)	m2	2.04	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	52,428.00	0.00	34,078.20	18,349.80	52,428.00	
M02015	Structural Steel (Plates, SS400)	kg	783.60	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	15,828.72	0.00	11,080.10	4,748.62	15,828.72	
M02511	Stainless Plate	kg	908.10	0.0%	100.0%	0.0%	70.0%	30.0%	135.00	0.00	122,593.50	0.00	85,815.45	36,778.05	122,593.50	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	11,549.62	7,699.75	10,587.15	8,662.22	19,249.37	8.0%
Total										7,321.90	244,844.87	7,699.75	171,039.90	88,826.62	259,866.52	
Components (%)										2.8%	94.2%	3.0%	65.8%	34.2%	100.0%	
Unit Rate			each							732.57	24,497.06	770.37	17,112.78	8,887.22	26,000.00	

Miscellaneous covers the cost for steel cutter, welding equipment, welding rods, tensioning jack, minor tools, etc.

SPL 407(3)d Restraining Cable  $\phi$  65 x 4224mm (PC 7-T15.2)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.30	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	748.80	0.00	0.00	0.00	748.80	748.80	
L009	Welder	md	3.90	100.0%	0.0%	0.0%	0.0%	100.0%	509.00	1,985.10	0.00	0.00	0.00	1,985.10	1,985.10	
L019	Skilled Labor	md	7.60	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	3,116.00	0.00	0.00	0.00	3,116.00	3,116.00	
L020	Unskilled Labor	md	4.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,472.00	0.00	0.00	0.00	1,472.00	1,472.00	
M09307	PC Strand, T15.2	kg	325.50	0.0%	100.0%	0.0%	70.0%	30.0%	119.00	0.00	38,734.50	0.00	27,114.15	11,620.35	38,734.50	
M09332	PC Sheath, $\phi$ 65	m	38.84	0.0%	100.0%	0.0%	65.0%	35.0%	123.00	0.00	4,777.32	0.00	3,105.26	1,672.06	4,777.32	
M09013	Elastomeric Pad (t=50mm)	m2	2.04	0.0%	100.0%	0.0%	65.0%	35.0%	25,700.00	0.00	52,428.00	0.00	34,078.20	18,349.80	52,428.00	
M02015	Structural Steel (Plates, SS400)	kg	960.00	0.0%	100.0%	0.0%	70.0%	30.0%	20.20	0.00	19,392.00	0.00	13,574.40	5,817.60	19,392.00	
M02511	Stainless Plate	kg	613.50	0.0%	100.0%	0.0%	70.0%	30.0%	135.00	0.00	82,822.50	0.00	57,975.75	24,846.75	82,822.50	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	9,862.86	6,575.24	9,040.95	7,397.14	16,438.10	8.0%
Total										7,321.90	208,017.18	6,575.24	144,888.71	77,025.61	221,914.32	
Components (%)										3.3%	93.7%	3.0%	65.3%	34.7%	100.0%	
Unit Rate			each							732.47	20,809.75	657.78	14,494.47	7,705.53	22,200.00	

Miscellaneous covers the cost for steel cutter, welding equipment, welding rods, tensioning jack, minor tools, etc.



## 407(4) G.I. Drain Pipe ø150mm for Bridge Drainage

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	230.40	0.00	0.00	0.00	230.40	230.40	
L019	Skilled Labor	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	451.00	0.00	0.00	0.00	451.00	451.00	
L020	Unskilled Labor	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	224.00	0.00	0.00	0.00	224.00	224.00	
M08709	Steel Gas Pipe, ø150	m	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	707.00	0.00	7,070.00	0.00	4,242.00	2,828.00	7,070.00	
M02012	Structural Steel (Flat Bar, SS400)	kg	10.48	0.0%	100.0%	0.0%	70.0%	30.0%	22.70	0.00	237.90	0.00	166.53	71.37	237.90	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	55.0%	45.0%		0.00	73.92	172.48	135.52	110.88	246.40	3.0%
	Total									905.40	7,381.82	172.48	4,544.05	3,915.65	8,459.70	
	Components (%)									10.7%	87.3%	2.0%	53.7%	46.3%	100.0%	
	Unit Rate	m								90.54	738.21	17.25	454.42	391.58	846.00	

Miscellaneous covers the costs for falseworks, galvanizing or painting, welding equipment, welding rods, minor tools, etc.

## SPL 407(5)a Pier Protection Concrete Blocks for Angat Bridge

Unit: 1,344.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0601	Pier Protection Concrete Block Type A Production & Laying	each	112.00	14.5%	62.6%	22.9%	50.2%	49.8%	3,040.00	49,413.10	213,016.34	78,050.56	170,791.02	169,688.98	340,480.00	
W0602	Pier Protection Concrete Block Type B Production & Laying	each	32.00	14.9%	62.2%	22.9%	49.9%	50.1%	2,900.00	13,855.42	57,692.80	21,251.78	46,336.05	46,463.95	92,800.00	
W0603	Pier Protection Concrete Block Type C Production & Laying	each	160.00	14.9%	62.0%	23.1%	49.9%	50.1%	2,860.00	68,309.69	283,560.01	105,730.30	228,225.92	229,374.08	457,600.00	
W0611	Stone Laying	m3	403.50	10.0%	14.3%	75.7%	47.5%	52.5%	379.00	15,336.22	21,885.04	115,705.23	72,602.76	80,323.74	152,926.50	
M02011	Structural Steel (Round Bar, SS400)	kg	681.80	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	14,863.24	0.00	10,404.27	4,458.97	14,863.24	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		1,058.67	3,176.01	6,352.02	5,293.35	5,293.35	10,586.70	1.0%
	Total									147,973.10	594,193.45	327,089.88	533,653.37	535,603.07	1,069,256.44	
	Components (%)									13.8%	55.6%	30.6%	49.9%	50.1%	100.0%	
	Unit Rate	m2								110.16	442.34	243.50	397.27	398.73	796.00	

Miscellaneous covers the costs for bed preparation, extra earthworks, adjustment, etc.

## SPL 407(5)b Pier Protection Concrete Blocks for Pampanga Bridge

Unit: 840.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0601	Pier Protection Concrete Block Type A Production & Laying	each	70.00	14.5%	62.6%	22.9%	50.2%	49.8%	3,040.00	30,883.19	133,135.22	48,781.60	106,744.39	106,055.61	212,800.00	
W0602	Pier Protection Concrete Block Type B Production & Laying	each	20.00	14.9%	62.2%	22.9%	49.9%	50.1%	2,900.00	8,659.64	36,058.00	13,282.36	28,960.03	29,039.97	58,000.00	
W0603	Pier Protection Concrete Block Type C Production & Laying	each	100.00	14.9%	62.0%	23.1%	49.9%	50.1%	2,860.00	42,693.56	177,225.01	66,081.44	142,641.20	143,358.80	286,000.00	
W0611	Stone Laying	m3	254.10	10.0%	14.3%	75.7%	47.5%	52.5%	379.00	9,657.83	13,781.88	72,864.19	45,720.85	50,583.05	96,303.90	
M02011	Structural Steel (Round Bar, SS400)	kg	426.20	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	9,291.16	0.00	6,503.81	2,787.35	9,291.16	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		662.40	1,987.19	3,974.37	3,311.98	3,311.98	6,623.95	1.0%
	Total									92,556.61	371,478.45	204,983.95	333,882.25	335,136.76	669,019.01	
	Components (%)									13.8%	55.5%	30.6%	49.9%	50.1%	100.0%	
	Unit Rate	m2								110.12	441.99	243.89	397.25	398.75	796.00	

Miscellaneous covers the costs for bed preparation, extra earthworks, adjustment, etc.

## SPL 407(5)c Pier Protection Concrete Blocks for Talavera Bridge

Unit: 896.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0601	Pier Protection Concrete Block Type A Production & Laying	each	24.00	14.5%	62.6%	22.9%	50.2%	49.8%	3,040.00	10,588.52	45,646.36	16,725.12	36,598.08	36,361.92	72,960.00	
W0602	Pier Protection Concrete Block Type B Production & Laying	each	104.00	14.9%	62.2%	22.9%	49.9%	50.1%	2,900.00	45,030.12	187,501.60	69,068.27	150,592.16	151,007.84	301,600.00	
W0603	Pier Protection Concrete Block Type C Production & Laying	each	88.00	14.9%	62.0%	23.1%	49.9%	50.1%	2,860.00	37,570.33	155,958.01	58,151.66	125,524.26	126,155.74	251,680.00	
W0611	Stone Laying	m3	262.80	10.0%	14.3%	75.7%	47.5%	52.5%	379.00	9,988.50	14,253.75	75,358.95	47,286.26	52,314.94	99,601.20	
M02011	Structural Steel (Round Bar, SS400)	kg	568.20	0.0%	100.0%	0.0%	70.0%	30.0%	21.80	0.00	12,386.76	0.00	8,670.73	3,716.03	12,386.76	
	Miscellaneous	LS	1.00	10.0%	30.0%	60.0%	50.0%	50.0%		738.23	2,214.68	4,429.37	3,691.14	3,691.14	7,382.28	1.0%
	Total									103,915.70	417,961.17	223,733.37	372,362.62	373,247.62	745,610.24	
	Components (%)									13.9%	56.1%	30.0%	49.9%	50.1%	100.0%	
	Unit Rate	m2								115.96	466.39	249.66	415.51	416.49	832.00	

Miscellaneous covers the costs for bed preparation, extra earthworks, adjustment, etc.

## SPL 420(1) Temporary Access Road Crossing Streams/Rivers

Unit: 1.00 U.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0121	Borrow Soil, transported	m3	732.00	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	4,655.31	20,834.39	53,566.30	35,547.97	43,508.03	79,056.00	Loss 20.0%
W0149	Filling, Laying & Compaction, bulldozer 21t	m3	610.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	548.51	2,776.84	30,956.65	18,605.36	15,676.64	34,282.00	
W0332	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication φ610 (24")	m	31.50	10.4%	68.5%	21.2%	53.5%	46.5%	1,110.00	3,619.60	23,935.47	7,409.94	18,721.21	16,243.76	34,965.00	
W0342	Precast Concrete Pipe Laying φ610 (24")	m	31.50	46.0%	8.2%	45.8%	29.5%	70.5%	246.00	3,567.51	635.33	3,546.16	2,283.61	5,465.39	7,749.00	
W0352	Precast Concrete Pipe Removal φ610 (24")	m	31.50	45.3%	6.0%	48.6%	29.9%	70.1%	76.00	1,085.22	144.25	1,164.53	716.21	1,677.79	2,394.00	
W0334	Precast Reinforced Concrete Pipe (Extra Strength), fabrication φ910 (36")	m	0.00	10.9%	68.4%	20.6%	53.4%	46.6%	2,640.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0344	Precast Concrete Pipe Laying φ910 (36")	m	0.00	31.3%	8.6%	60.1%	37.5%	62.5%	516.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0354	Precast Concrete Pipe Removal φ910 (36")	m	0.00	31.0%	5.4%	62.5%	37.7%	62.3%	159.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0335	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication φ1070 (42")	m	0.00	11.3%	68.7%	20.0%	53.4%	46.6%	3,960.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0345	Precast Concrete Pipe Laying φ1070 (42")	m	0.00	31.8%	8.6%	59.7%	37.2%	62.8%	594.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0355	Precast Concrete Pipe Removal φ1070 (42")	m	0.00	31.5%	6.4%	62.1%	37.4%	62.6%	183.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0336	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication φ1220 (48")	m	48.00	10.9%	68.4%	20.7%	53.4%	46.6%	4,310.00	22,553.67	141,510.07	42,816.27	110,548.72	96,331.28	206,880.00	
W0346	Precast Concrete Pipe Laying φ1220 (48")	m	48.00	31.5%	8.6%	59.9%	37.4%	62.6%	665.00	10,050.23	2,743.56	19,126.20	11,923.31	19,996.69	31,920.00	
W0356	Precast Concrete Pipe Removal φ1220 (48")	m	48.00	31.2%	6.4%	62.4%	37.6%	62.4%	205.00	3,073.94	630.18	6,135.88	3,694.97	6,145.03	9,840.00	
W0105	Excavation, Backhoe 0.61m3	m3	610.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	1,122.71	2,095.72	21,730.58	13,192.70	11,756.30	24,949.00	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	610.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4,683.50	8,380.28	43,727.23	29,200.17	27,590.83	56,791.00	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	50.0%	50.0%		733.24	1,955.30	2,199.72	2,444.13	2,444.13	4,888.26	1.0%
	Total									55,693.43	205,641.38	232,379.45	246,878.38	246,835.88	493,714.26	
	Components (%)									11.3%	41.7%	47.1%	50.0%	50.0%	100.0%	
	Unit Rate	L.S.								55,725.66	205,760.40	232,513.94	247,021.26	246,978.74	494,000.00	

Miscellaneous covers the cost for temporary paving, maintenance, safety measures, etc.

## SPL 420(2) Realignment of River/Stream

Unit: 1.00 U.S.

Unit Rate										Amount						Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	0.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	0.00	0.00	0.00	0.00	0.00	0.00	Loss 20.0%
W0121	Borrow Soil, transported	m3	0.00	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0149	Filling, Laying & Compaction, bulldozer 21t	m3	0.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0202	Concrete (Class B, 17MPa, max agg. 50mm)	m3	0.00	2.9%	77.5%	19.6%	56.2%	43.8%	1,360.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0235	Concrete Pouring by Manpower for small structures	m3	0.00	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0240	Formwork (plain concrete H<4m)	m2	0.00	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0741	Grouted Riprap Class A	m3	0.00	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	40.0%	60.0%		0.00	0.00	0.00	0.00	0.00	0.00	3.0%
	Total									0.00	0.00	0.00	0.00	0.00	0.00	
	Components (%)									0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%
	Unit Rate	L.S.								0.00	0.00	0.00	0.00	0.00	0.00	

Miscellaneous covers the cost for temporary shoring, revetment, maintenance, safety measures, etc.

SPL 420(3) False Works Required for Cantilever Construction for PC Box Girder (Angat River)

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)					Component (PP)								
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
W0651	Temporary Support at Pier Head for Cantilever Construction	v-m3	5.10	34.7%	17.7%	47.6%	35.2%	64.8%	428.00	758.11	385.60	1,039.09	767.55	1,415.25	2,182.80		
W0652	Temporary Bracket Support at Pier Head for Cantilever Construction	t	299.20	24.7%	44.4%	30.9%	39.0%	61.0%	7,880.00	581,578.97	1,047,819.27	728,297.76	920,456.47	1,437,239.53	2,357,696.00		
W0653	Temporary External & Internal Support at Pier Head for Cantilever Construction	v-m3	1,293.20	29.5%	29.9%	40.5%	37.3%	62.7%	173.00	66,105.06	66,899.95	90,718.59	83,486.72	140,236.88	223,723.60		
W0654	Temporary Suspension Support at Center Connection for Cantilever Construction	t	42.20	24.9%	29.1%	46.0%	39.7%	60.3%	8,370.00	87,956.19	102,853.42	162,404.39	140,267.98	212,946.02	353,214.00		
W0655	Temporary External & Internal Support at Center Connection for Cantilever Construction	v-m3	185.10	28.4%	28.6%	43.0%	37.8%	62.2%	180.00	9,451.95	9,530.76	14,335.29	12,601.82	20,716.18	33,318.00		
W0656	Temporary Frame Support at Side Span for Cantilever Construction	v-m3	3,622.50	21.7%	40.5%	37.9%	41.1%	58.9%	94.20	73,923.23	138,121.28	129,194.98	140,216.62	201,022.88	341,239.50		
W0657	Temporary External & Internal Support at Side Span for Cantilever Construction	v-m3	530.60	30.1%	28.7%	41.2%	37.1%	62.9%	169.00	26,991.35	25,717.84	36,962.21	33,249.87	56,421.53	89,671.40		
W0661	Assembly & Disassembly of Form Traveler	set	12.00	23.7%	17.7%	58.6%	40.9%	59.1%	337,000.00	958,516.49	717,027.32	2,368,456.19	1,652,729.14	2,391,270.86	4,044,000.00		
W0662	Form Traveler Shifting	time	96.00	78.7%	12.8%	8.5%	10.6%	89.4%	2,120.00	160,251.97	25,960.82	17,307.21	21,634.02	181,885.98	203,520.00		
W0663	Form Traveler Lifting	time	96.00	100.0%	0.0%	0.0%	0.0%	100.0%	5,070.00	486,720.00	0.00	0.00	0.00	486,720.00	486,720.00		
W0664	Form Traveler Pulling Back	m	376.00	100.0%	0.0%	0.0%	0.0%	100.0%	116.00	43,616.00	0.00	0.00	0.00	43,616.00	43,616.00		
Q1521-014	PC Bridge Cantilever Construction Form Traveler, W≤14m	day	1,393.00	0.0%	0.0%	100.0%	60.9%	39.1%	16,700.00	0.00	0.00	23,263,100.00	14,178,100.34	9,084,999.66	23,263,100.00		
	Miscellaneous	LS	1.00	5.0%	40.0%	55.0%	50.0%	50.0%		31,442.00	251,536.01	345,862.01	314,420.01	314,420.01	628,840.03	2.0%	
	Total									2,527,311.32	2,385,852.27	27,157,677.73	17,497,930.54	14,572,910.79	32,070,841.33		
	Components (%)									7.9%	7.4%	84.7%	54.6%	45.4%	100.0%		
	Unit Rate	L.S.								2,529,609.14	2,388,021.48	27,182,369.38	17,513,839.58	14,586,160.42	32,100,000.00		

Miscellaneous covers the cost for the depreciation of minor tools and equipment, etc.

SPL 420(4)a Temporary Craneway for Angat Bridge Construction

Unit: 416.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0406	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	5,845.50	10.4%	13.5%	76.1%	49.8%	50.2%	117.00	71,243.01	92,311.96	520,368.53	340,925.47	342,998.03	683,923.50	
W0407	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	5,845.50	10.3%	13.4%	76.2%	49.9%	50.1%	102.00	61,690.92	80,056.78	454,493.31	297,393.91	298,847.09	596,241.00	
W0421	Temporary Access Bridge Superstructure Installation	t	568.60	21.9%	8.0%	70.1%	43.2%	56.8%	1,450.00	180,547.15	65,707.78	578,215.07	356,120.22	468,349.78	824,470.00	
W0422	Temporary Access Bridge Superstructure Removal	t	568.60	23.4%	8.2%	68.4%	42.4%	57.6%	1,010.00	134,446.97	47,167.38	392,671.66	243,216.90	331,069.10	574,286.00	
W0415	Temporary Deck Plate Installation	m2	4,784.00	35.7%	5.8%	58.5%	35.5%	64.5%	78.70	134,354.86	21,965.15	220,180.79	133,744.52	242,756.28	376,500.80	
W0416	Temporary Deck Plate Removal	m2	4,784.00	35.7%	5.8%	58.5%	35.5%	64.5%	43.00	73,356.52	12,006.02	120,349.47	73,103.93	132,608.07	205,712.00	
W0423	Temporary Access Bridge Railing Installation	m	1,196.00	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	46,335.91	8,544.48	71,895.61	44,482.05	82,293.95	126,776.00	
W0424	Temporary Access Bridge Railing Removal	m	1,196.00	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	26,405.24	3,682.85	38,442.72	23,306.94	45,223.86	68,530.80	
M05041	Temporary Steel Shapes Depreciation	t-d	624,576.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	19,549,228.80	0.00	9,774,614.40	9,774,614.40	19,549,228.80	
M05051	Temporary Deck Plate Depreciation	m2-d	2,296,320.00	0.0%	100.0%	0.0%	50.0%	50.0%	11.10	0.00	25,489,152.00	0.00	12,744,576.00	12,744,576.00	25,489,152.00	
M05055	Temporary Pipe Railing Depreciation	m-d	574,080.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	763,526.40	0.00	381,763.20	381,763.20	763,526.40	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	55.0%	45.0%		73,887.52	197,033.39	221,662.56	270,920.91	221,662.56	492,583.47	1.0%
	Total									802,268.09	46,330,382.98	2,618,279.70	24,684,168.44	25,066,762.33	49,750,930.77	
	Components (%)									1.6%	93.1%	5.3%	49.6%	50.4%	100.0%	
	Unit Rate	m								1,935.08	111,749.59	6,315.33	59,538.59	60,461.41	120,000.00	

Miscellaneous covers the costs for material haulage, maintenance, etc.

H-Pile = 7,794.0 m      732.6 t      Pile Driving Length = 5,845.5 m  
 Superstructure = 568.6 t      Deck Plate = 4,784.0 m2  
 Depreciation Period = 480 days      Railing = 1,196.0 m

## SPL 420(4)b Temporary Craneway for Pampanga Bridge Construction

Unit: 320.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0406	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	3,290.60	10.4%	13.5%	76.1%	49.8%	50.2%	117.00	40,104.74	51,965.06	292,930.41	191,916.75	193,083.45	385,000.20	
W0407	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	3,290.60	10.3%	13.4%	76.2%	49.9%	50.1%	102.00	34,727.59	45,066.26	255,847.35	167,411.58	168,229.62	335,641.20	
W0421	Temporary Access Bridge Superstructure Installation	t	428.90	21.9%	8.0%	70.1%	43.2%	56.8%	1,450.00	136,188.31	49,563.96	436,152.73	268,624.62	353,280.38	621,905.00	
W0422	Temporary Access Bridge Superstructure Removal	t	428.90	23.4%	8.2%	68.4%	42.4%	57.6%	1,010.00	101,414.53	35,578.77	296,195.70	183,460.65	249,728.35	433,189.00	
W0415	Temporary Deck Plate Installation	m2	3,470.00	35.7%	5.8%	58.5%	35.5%	64.5%	78.70	97,452.21	15,932.08	159,704.71	97,009.51	176,079.49	273,089.00	
W0416	Temporary Deck Plate Removal	m2	3,470.00	35.7%	5.8%	58.5%	35.5%	64.5%	43.00	53,208.01	8,708.38	87,293.61	53,024.80	96,185.20	149,210.00	
W0423	Temporary Access Bridge Railing Installation	m	900.00	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	34,868.16	6,429.79	54,102.05	33,473.12	61,926.88	95,400.00	
W0424	Temporary Access Bridge Railing Removal	m	900.00	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	19,870.16	2,771.37	28,928.47	17,538.67	34,031.33	51,570.00	
M05041	Temporary Steel Shapes Depreciation	t-d	504,780.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	15,799,614.00	0.00	7,899,807.00	7,899,807.00	15,799,614.00	
M05051	Temporary Deck Plate Depreciation	m2-d	2,082,000.00	0.0%	100.0%	0.0%	50.0%	50.0%	11.10	0.00	23,110,200.00	0.00	11,555,100.00	11,555,100.00	23,110,200.00	
M05055	Temporary Pipe Railing Depreciation	m-d	540,000.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	718,200.00	0.00	359,100.00	359,100.00	718,200.00	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	55.0%	45.0%		62,959.53	167,892.07	188,878.58	230,851.60	188,878.58	419,730.18	1.0%
	Total									580,793.24	40,011,921.75	1,800,033.60	21,057,318.29	21,335,430.29	42,392,748.58	
	Components (%)									1.4%	94.4%	4.2%	49.7%	50.3%	100.0%	
	Unit Rate	m								1,808.44	124,586.72	5,604.84	65,567.02	66,432.98	132,000.00	

Miscellaneous covers the cost for material haulage, maintenance, etc.

H-Pile = 4,387.5 m

412.4 t

Pile Driving Length =

3,290.6 m

Superstructure = 428.9 t

Deck Plate =

3,470.0 m2

Depreciation Period = 600 days

Railing =

900.0 m

## SPL 420(4)c Temporary Craneway for Talavera Bridge Construction

Unit: 80.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0406	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	1,042.88	10.4%	13.5%	76.1%	49.8%	50.2%	117.00	12,710.21	16,469.05	92,837.11	60,823.31	61,193.07	122,016.38	
W0407	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	1,042.88	10.3%	13.4%	76.2%	49.9%	50.1%	102.00	11,006.06	14,282.65	81,084.54	53,057.00	53,316.25	106,373.25	
W0421	Temporary Access Bridge Superstructure Installation	t	126.00	21.9%	8.0%	70.1%	43.2%	56.8%	1,450.00	40,010.21	14,561.19	128,135.53	78,918.13	103,788.80	182,706.93	
W0422	Temporary Access Bridge Superstructure Removal	t	126.00	23.4%	8.2%	68.4%	42.4%	57.6%	1,010.00	29,794.16	10,452.54	87,018.13	53,898.16	73,366.67	127,264.83	
W0415	Temporary Deck Plate Installation	m2	1,004.00	35.7%	5.8%	58.5%	35.5%	64.5%	78.70	28,196.55	4,609.74	46,208.51	28,068.46	50,946.34	79,014.80	
W0416	Temporary Deck Plate Removal	m2	1,004.00	35.7%	5.8%	58.5%	35.5%	64.5%	43.00	15,395.05	2,519.66	25,257.29	15,342.05	27,829.95	43,172.00	
W0423	Temporary Access Bridge Railing Installation	m	264.00	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	10,227.99	1,886.07	15,869.93	9,818.78	18,165.22	27,984.00	
W0424	Temporary Access Bridge Railing Removal	m	264.00	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	5,828.58	812.94	8,485.68	5,144.68	9,982.52	15,127.20	
M05041	Temporary Steel Shapes Depreciation	t-d	100,117.59	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	3,133,680.57	0.00	1,566,840.29	1,566,840.29	3,133,680.57	
M05051	Temporary Deck Plate Depreciation	m2-d	391,560.00	0.0%	100.0%	0.0%	50.0%	50.0%	11.10	0.00	4,346,316.00	0.00	2,173,158.00	2,173,158.00	4,346,316.00	
M05055	Temporary Pipe Railing Depreciation	m-d	102,960.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	136,936.80	0.00	68,468.40	68,468.40	136,936.80	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	55.0%	45.0%		12,480.89	33,282.37	37,442.67	45,763.26	37,442.67	83,205.93	1.0%
	Total									165,649.71	7,715,809.58	522,339.40	4,159,300.50	4,244,498.19	8,403,798.69	
	Components (%)									2.0%	91.8%	6.2%	49.5%	50.5%	100.0%	
	Unit Rate	m								2,069.69	96,404.02	6,526.29	51,967.76	53,032.24	105,000.00	

Miscellaneous covers the cost for material haulage, maintenance, etc.

H-Pile = 1,390.5 m

130.7 t

Pile Driving Length =

1,042.9 m

Superstructure = 126.0 t

Deck Plate =

1,004.0 m2

Depreciation Period = 390 days

Railing =

264.0 m

## SPL 420(5)a Temporary Access Road (Causeway) for Angat Bridge Construction

Unit: 710.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0121	Borrow Soil, transported	m3	14,179.50	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	90,177.49	403,580.91	1,037,627.60	688,596.24	842,789.76	1,531,386.00	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	12,330.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	11,087.14	56,128.63	625,730.24	376,072.20	316,873.80	692,946.00	
W0122	Crushed Aggregate, transported	m3	1,339.75	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	31,842.32	53,645.61	260,167.57	162,375.34	183,280.16	345,655.50	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	1,165.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	1,047.57	5,303.31	59,122.12	35,533.18	29,939.82	65,473.00	
W0105	Excavation, Backhoe 0.61m3	m3	13,495.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	24,837.55	46,363.42	480,744.53	291,861.38	260,084.12	551,945.50	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	13,495.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	103,612.77	185,396.46	967,375.27	645,993.81	610,390.69	1,256,384.50	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	45.0%	55.0%		6,665.69	17,775.16	19,997.06	19,997.06	24,440.85	44,437.91	1.0%
	Total									269,270.51	768,193.50	3,450,764.39	2,220,429.21	2,267,799.20	4,488,228.41	
	Components (%)									6.0%	17.1%	76.9%	49.5%	50.5%	100.0%	
	Unit Rate	m								379.17	1,081.71	4,859.12	3,126.65	3,193.35	6,320.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(5)b Temporary Access Road (Causeway) for Pampanga Bridge Construction

Unit: 880.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0121	Borrow Soil, transported	m3	14,099.00	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	89,665.54	401,289.69	1,031,736.77	684,686.93	838,005.07	1,522,692.00	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	12,260.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	11,024.19	55,809.97	622,177.84	373,937.16	315,074.84	689,012.00	
W0122	Crushed Aggregate, transported	m3	1,660.60	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	39,468.07	66,492.93	322,473.80	201,261.79	227,173.01	428,434.80	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	1,444.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	1,298.44	6,573.38	73,280.98	44,042.84	37,109.96	81,152.80	
W0105	Excavation, Backhoe 0.61m3	m3	13,704.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	25,222.21	47,081.46	488,189.93	296,381.50	264,112.10	560,493.60	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	13,704.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	105,217.44	188,267.74	982,357.22	655,998.46	619,843.94	1,275,842.40	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	45.0%	55.0%		6,836.44	18,230.51	20,509.32	20,509.32	25,066.95	45,576.28	1.0%
	Total									278,732.34	783,745.68	3,540,725.85	2,276,818.01	2,326,385.86	4,603,203.88	
	Components (%)									6.1%	17.0%	76.9%	49.5%	50.5%	100.0%	
	Unit Rate	m								316.69	890.46	4,022.85	2,586.84	2,643.16	5,230.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(5)c Temporary Access Road (Causeway) for Talavera Bridge Construction

Unit: 300.00 m

Unit Rate																
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0121	Borrow Soil, transported	m3	7,762.50	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	49,367.24	220,938.45	568,044.31	376,968.74	461,381.26	838,350.00	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	6,750.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	6,069.60	30,727.35	342,553.05	205,878.94	173,471.06	379,350.00	
W0122	Crushed Aggregate, transported	m3	565.80	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	13,447.57	22,655.49	109,873.34	68,573.96	77,402.44	145,976.40	Loss 15.0%
W0149	Filling, Laying & Compaction, bulldozer 2lt	m3	492.00	1.6%	8.1%	90.3%	54.3%	45.7%	56.20	442.41	2,239.68	24,968.31	15,006.29	12,644.11	27,650.40	
W0105	Excavation, Backhoe 0.61m3	m3	7,242.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	13,328.90	24,880.62	257,988.28	156,625.42	139,572.38	296,197.80	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	7,242.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	55,603.09	99,491.75	519,135.36	346,668.19	327,562.01	674,230.20	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	45.0%	55.0%		3,542.63	9,447.02	10,627.90	10,627.90	12,989.65	23,617.55	1.0%
	Total									141,801.44	410,380.36	1,833,190.55	1,180,349.45	1,205,022.90	2,385,372.35	
	Components (%)									5.9%	17.2%	76.9%	49.5%	50.5%	100.0%	
	Unit Rate	m								472.60	1,367.72	6,109.68	3,933.88	4,016.12	7,950.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(6)a Temporary Cofferdam for Pier Construction (Angat Bridge Type 1)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0451	Temporary Sheet Pile Driving for cofferdam. (Vibro Hammer)	m	3,494.00	9.8%	14.8%	75.5%	50.3%	49.7%	126.00	42,999.28	65,019.68	332,225.04	221,649.00	218,595.00	440,244.00	
W0452	Temporary Sheet Pile Removal for cofferdam. (Vibro Hammer)	m	3,494.00	9.8%	14.8%	75.4%	50.3%	49.7%	77.80	26,604.70	40,222.40	205,006.10	136,839.29	134,993.91	271,833.20	
W0455	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	124.00	9.8%	14.8%	75.4%	50.3%	49.7%	149.00	1,812.53	2,740.27	13,923.20	9,299.12	9,176.88	18,476.00	
W0456	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	124.00	9.8%	14.9%	75.3%	50.3%	49.7%	85.80	1,046.75	1,582.18	8,010.27	5,353.67	5,285.53	10,639.20	
W0413	Temporary Struts & Tie Rod Installation	t	61.60	31.3%	11.0%	57.7%	38.2%	61.8%	4,240.00	81,786.77	28,795.41	150,601.82	99,649.26	161,534.74	261,184.00	
W0414	Temporary Struts & Supports Removal	t	61.60	29.1%	9.4%	61.5%	39.1%	60.9%	2,130.00	38,245.71	12,325.08	80,637.21	51,320.64	79,887.36	131,208.00	
W0423	Temporary Access Bridge Railing Installation	m	49.20	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	1,906.13	351.50	2,957.58	1,829.86	3,385.34	5,215.20	
W0424	Temporary Access Bridge Railing Removal	m	49.20	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	1,086.24	151.50	1,581.42	958.78	1,860.38	2,819.16	
M05031	Temporary Sheet Pile Depreciation	t-d	20,045.00	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	667,498.50	0.00	333,749.25	333,749.25	667,498.50	
M05041	Temporary Steel Shapes Depreciation	t-d	4,551.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	142,446.30	0.00	71,223.15	71,223.15	142,446.30	
M05055	Temporary Pipe Railing Depreciation	m-d	4,200.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	5,586.00	0.00	2,793.00	2,793.00	5,586.00	
W0431	Temporary Drain Pump Installation & Removal	set	1.00	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	1,355.36	205.83	1,338.82	861.26	2,038.74	2,900.00	
W0432	Temporary Drain Pump Operation	day	60.00	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	5,913.12	14,795.43	50,691.45	36,606.04	34,793.96	71,400.00	
W0121	Borrow Soil, transported	m3	671.88	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	4,272.96	19,123.24	49,166.84	32,628.37	39,934.67	72,563.04	Loss 10.0%
W0131	Backfill A	m3	610.80	3.6%	8.0%	88.4%	53.3%	46.7%	88.80	1,946.01	4,358.18	47,934.85	28,911.88	25,327.16	54,239.04	
W0105	Excavation, Backhoe 0.61m3	m3	610.80	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	1,124.18	2,098.46	21,759.08	13,210.00	11,771.72	24,981.72	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	610.80	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4,689.64	8,391.27	43,784.57	29,238.46	27,627.02	56,865.48	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	50.0%	50.0%		3,360.15	8,960.40	10,080.44	11,200.49	11,200.49	22,400.99	1.0%
Total										218,149.52	1,024,651.61	1,019,698.70	1,087,321.53	1,175,178.30	2,262,499.83	
Components (%)										9.6%	45.3%	45.1%	48.1%	51.9%	100.0%	
Unit Rate				each						217,908.49	1,023,519.48	1,018,572.04	1,086,120.15	1,173,879.85	2,260,000.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(6)b Temporary Cofferdam for Pier Construction (Angat Bridge Type 2)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0451	Temporary Sheet Pile Driving for cofferdam. (Vibro Hammer)	m	5,020.00	9.8%	14.8%	75.5%	50.3%	49.7%	126.00	61,779.16	93,416.94	477,323.89	318,453.91	314,066.09	632,520.00	
W0452	Temporary Sheet Pile Removal for cofferdam. (Vibro Hammer)	m	5,020.00	9.8%	14.8%	75.4%	50.3%	49.7%	77.80	38,224.27	57,789.48	294,542.25	196,603.67	193,952.33	390,556.00	
W0455	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	124.00	9.8%	14.8%	75.4%	50.3%	49.7%	149.00	1,812.53	2,740.27	13,923.20	9,299.12	9,176.88	18,476.00	
W0456	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	124.00	9.8%	14.9%	75.3%	50.3%	49.7%	85.80	1,046.75	1,582.18	8,010.27	5,353.67	5,285.53	10,639.20	
W0413	Temporary Struts & Tie Rod Installation	t	86.00	31.3%	11.0%	57.7%	38.2%	61.8%	4,240.00	114,182.82	40,201.39	210,255.79	139,120.72	225,519.28	364,640.00	
W0414	Temporary Struts & Supports Removal	t	86.00	29.1%	9.4%	61.5%	39.1%	60.9%	2,130.00	53,394.98	17,207.09	112,577.93	71,648.94	111,531.06	183,180.00	
W0423	Temporary Access Bridge Railing Installation	m	52.80	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	2,045.60	377.21	3,173.99	1,963.76	3,633.04	5,596.80	
W0424	Temporary Access Bridge Railing Removal	m	52.80	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	1,165.72	162.59	1,697.14	1,028.94	1,996.50	3,025.44	
M05031	Temporary Sheet Pile Depreciation	t-d	22,921.00	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	763,269.30	0.00	381,634.65	381,634.65	763,269.30	
M05041	Temporary Steel Shapes Depreciation	t-d	6,019.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	188,394.70	0.00	94,197.35	94,197.35	188,394.70	
M05055	Temporary Pipe Railing Depreciation	m-d	3,168.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	4,213.44	0.00	2,106.72	2,106.72	4,213.44	
W0431	Temporary Drain Pump Installation & Removal	set	1.00	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	1,355.36	205.83	1,338.82	861.26	2,038.74	2,900.00	
W0432	Temporary Drain Pump Operation	day	60.00	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	5,913.12	14,795.43	50,691.45	36,606.04	34,793.96	71,400.00	
W0121	Borrow Soil, transported	m3	770.88	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	4,902.57	21,941.00	56,411.46	37,436.09	45,818.95	83,255.04	Loss 10.0%
W0131	Backfill A	m3	700.80	3.6%	8.0%	88.4%	53.3%	46.7%	88.80	2,232.75	5,000.35	54,997.94	33,171.98	29,059.06	62,231.04	
W0105	Excavation, Backhoe 0.61m3	m3	700.80	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	1,289.82	2,407.67	24,965.23	15,156.46	13,506.26	28,662.72	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	700.80	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	5,380.65	9,627.70	50,236.13	33,546.68	31,697.80	65,244.48	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	50.0%	50.0%		4,317.31	11,512.82	12,951.92	14,391.02	14,391.02	28,782.04	1.0%
Total										299,043.42	1,234,845.37	1,373,097.41	1,392,580.99	1,514,405.22	2,906,986.20	
Components (%)										10.3%	42.5%	47.2%	47.9%	52.1%	100.0%	
Unit Rate				each						299,353.45	1,236,125.59	1,374,520.96	1,394,024.73	1,515,975.27	2,910,000.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(6)c Temporary Cofferdam for Pier Construction (Pampanga Bridge)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0451	Temporary Sheet Pile Driving for cofferdam. (Vibro Hammer)	m	3,852.00	9.8%	14.8%	75.5%	50.3%	49.7%	126.00	47,405.05	71,681.69	366,265.27	244,359.46	240,992.54	485,352.00	
W0452	Temporary Sheet Pile Removal for cofferdam. (Vibro Hammer)	m	3,852.00	9.8%	14.8%	75.4%	50.3%	49.7%	77.80	29,330.66	44,343.64	226,011.31	150,860.03	148,825.57	299,685.60	
W0455	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	92.00	9.8%	14.8%	75.4%	50.3%	49.7%	149.00	1,344.78	2,033.10	10,330.12	6,899.34	6,808.66	13,708.00	
W0456	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	92.00	9.8%	14.9%	75.3%	50.3%	49.7%	85.80	776.62	1,173.88	5,943.10	3,972.08	3,921.52	7,893.60	
W0413	Temporary Struts & Tie Rod Installation	t	69.50	31.3%	11.0%	57.7%	38.2%	61.8%	4,240.00	92,275.65	32,488.33	169,916.02	112,428.96	182,251.04	294,680.00	
W0414	Temporary Struts & Supports Removal	t	69.50	29.1%	9.4%	61.5%	39.1%	60.9%	2,130.00	43,150.60	13,905.73	90,978.67	57,902.34	90,132.65	148,035.00	
W0423	Temporary Access Bridge Railing Installation	m	52.80	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	2,045.60	377.21	3,173.99	1,963.76	3,633.04	5,596.80	
W0424	Temporary Access Bridge Railing Removal	m	52.80	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	1,165.72	162.59	1,697.14	1,028.94	1,996.50	3,025.44	
M05031	Temporary Sheet Pile Depreciation	t-d	17,588.00	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	585,680.40	0.00	292,840.20	292,840.20	585,680.40	
M05041	Temporary Steel Shapes Depreciation	t-d	4,845.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	151,648.50	0.00	75,824.25	75,824.25	151,648.50	
M05055	Temporary Pipe Railing Depreciation	m-d	3,168.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	4,213.44	0.00	2,106.72	2,106.72	4,213.44	
W0431	Temporary Drain Pump Installation & Removal	set	1.00	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	1,355.36	205.83	1,338.82	861.26	2,038.74	2,900.00	
W0432	Temporary Drain Pump Operation	day	60.00	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	5,913.12	14,795.43	50,691.45	36,606.04	34,793.96	71,400.00	
W0121	Borrow Soil, transported	m3	818.40	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	5,204.79	23,293.53	59,888.88	39,743.80	48,643.40	88,387.20	Loss 10.0%
W0131	Backfill A	m3	744.00	3.6%	8.0%	88.4%	53.3%	46.7%	88.80	2,370.38	5,308.59	58,388.23	35,216.83	30,850.37	66,067.20	
W0105	Excavation, Backhoe 0.61m3	m3	744.00	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	1,369.33	2,556.09	26,504.18	16,090.76	14,338.84	30,429.60	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	744.00	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	5,712.33	10,221.19	53,332.88	35,614.63	33,651.77	69,266.40	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	50.0%	50.0%		3,491.95	9,311.88	10,475.86	11,639.85	11,639.85	23,279.69	1.0%
	Total									242,911.94	973,401.03	1,134,935.90	1,125,959.23	1,225,289.64	2,351,248.87	
	Components (%)									10.3%	41.4%	48.3%	47.9%	52.1%	100.0%	
	Unit Rate	each								242,782.92	972,884.00	1,134,333.08	1,125,361.18	1,224,638.82	2,350,000.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## SPL 420(6)d Temporary Cofferdam for Pier Construction (Talavera Bridge)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0451	Temporary Sheet Pile Driving for cofferdam. (Vibro Hammer)	m	2,470.00	9.8%	14.8%	75.5%	50.3%	49.7%	126.00	30,397.32	45,964.11	234,858.57	156,689.48	154,530.52	311,220.00	
W0452	Temporary Sheet Pile Removal for cofferdam. (Vibro Hammer)	m	2,470.00	9.8%	14.8%	75.4%	50.3%	49.7%	77.80	18,807.56	28,434.26	144,924.18	96,735.27	95,430.73	192,166.00	
W0455	H-Pile Driving for Temporary Access Bridge (Vibro Hammer)	m	92.00	9.8%	14.8%	75.4%	50.3%	49.7%	149.00	1,344.78	2,033.10	10,330.12	6,899.34	6,808.66	13,708.00	
W0456	H-Pile Removal for Temporary Access Bridge (Vibro Hammer)	m	92.00	9.8%	14.9%	75.3%	50.3%	49.7%	85.80	776.62	1,173.88	5,943.10	3,972.08	3,921.52	7,893.60	
W0413	Temporary Struts & Tie Rod Installation	t	37.40	31.3%	11.0%	57.7%	38.2%	61.8%	4,240.00	49,656.25	17,482.93	91,436.82	60,501.34	98,074.66	158,576.00	
W0414	Temporary Struts & Supports Removal	t	37.40	29.1%	9.4%	61.5%	39.1%	60.9%	2,130.00	23,220.61	7,483.08	48,958.31	31,158.96	48,503.04	79,662.00	
W0423	Temporary Access Bridge Railing Installation	m	49.10	36.5%	6.7%	56.7%	35.1%	64.9%	106.00	1,902.25	350.78	2,951.57	1,826.14	3,378.46	5,204.60	
W0424	Temporary Access Bridge Railing Removal	m	49.10	38.5%	5.4%	56.1%	34.0%	66.0%	57.30	1,084.03	151.19	1,578.21	956.83	1,856.60	2,813.43	
M05031	Temporary Sheet Pile Depreciation	t-d	15,369.00	0.0%	100.0%	0.0%	50.0%	50.0%	33.30	0.00	511,787.70	0.00	255,893.85	255,893.85	511,787.70	
M05041	Temporary Steel Shapes Depreciation	t-d	2,918.00	0.0%	100.0%	0.0%	50.0%	50.0%	31.30	0.00	91,333.40	0.00	45,666.70	45,666.70	91,333.40	
M05055	Temporary Pipe Railing Depreciation	m-d	2,943.00	0.0%	100.0%	0.0%	50.0%	50.0%	1.33	0.00	3,914.19	0.00	1,957.10	1,957.10	3,914.19	
W0431	Temporary Drain Pump Installation & Removal	set	1.00	46.7%	7.1%	46.2%	29.7%	70.3%	2,900.00	1,355.36	205.83	1,338.82	861.26	2,038.74	2,900.00	
W0432	Temporary Drain Pump Operation	day	60.00	8.3%	20.7%	71.0%	51.3%	48.7%	1,190.00	5,913.12	14,795.43	50,691.45	36,606.04	34,793.96	71,400.00	
W0121	Borrow Soil, transported	m3	587.95	5.9%	26.4%	67.8%	45.0%	55.0%	108.00	3,739.19	16,734.40	43,025.01	28,552.50	34,946.10	63,498.60	Loss 10.0%
W0131	Backfill A	m3	534.50	3.6%	8.0%	88.4%	53.3%	46.7%	88.80	1,702.92	3,813.76	41,946.92	25,300.26	22,163.34	47,463.60	
W0105	Excavation, Backhoe 0.61m3	m3	534.50	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	983.75	1,836.33	19,040.97	11,559.83	10,301.22	21,861.05	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	534.50	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4,103.82	7,343.05	38,315.09	25,586.05	24,175.90	49,761.95	
	Miscellaneous	LS	1.00	15.0%	40.0%	45.0%	50.0%	50.0%		2,452.75	6,540.66	7,358.24	8,175.82	8,175.82	16,351.64	1.0%
	Total									147,440.32	761,378.08	742,697.36	798,898.85	852,616.91	1,651,515.76	
	Components (%)									8.9%	46.1%	45.0%	48.4%	51.6%	100.0%	
	Unit Rate	each								147,305.00	760,679.28	742,015.71	798,165.62	851,834.38	1,650,000.00	

Miscellaneous covers the costs for maintenance works, minor works, etc.

## Part G Drainage and Slope Protection Structures

500(1)a3 RCPC Standard Strength (25MPa),  $\phi$ 450mm (18")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0303	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 460 (18")	m	10.00	9.8%	66.6%	23.6%	53.4%	46.6%	524.00	513.04	3,490.48	1,236.48	2,800.18	2,439.82	5,240.00	
W0341	Precast Concrete Pipe Laying $\phi$ 460 (18")	m	10.00	47.4%	8.0%	44.6%	28.7%	71.3%	202.00	957.45	162.59	899.96	580.02	1,439.98	2,020.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,470.49	3,653.07	2,136.44	3,380.20	3,879.80	7,260.00	
	Components (%)									20.3%	50.3%	29.4%	46.6%	53.4%	100.0%	
	Unit Rate	m								147.05	365.31	213.64	338.02	387.98	726.00	

500(1)a4 RCPC Standard Strength (25MPa),  $\phi$ 610mm (24")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0304	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 610 (24")	m	10.00	10.0%	66.8%	23.1%	53.4%	46.6%	865.00	867.86	5,780.47	2,001.67	4,619.83	4,030.17	8,650.00	0.0%
W0342	Precast Concrete Pipe Laying $\phi$ 610 (24")	m	10.00	46.0%	8.2%	45.8%	29.5%	70.5%	246.00	1,132.54	201.69	1,125.77	724.95	1,735.05	2,460.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,000.41	5,982.16	3,127.44	5,344.79	5,765.21	11,110.00	
	Components (%)									18.0%	53.8%	28.1%	48.1%	51.9%	100.0%	
	Unit Rate	m								199.86	597.68	312.46	534.00	576.00	1,110.00	

500(1)a5 RCPC Standard Strength (25MPa),  $\phi$ 760mm (30")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0305	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 760 (30")	m	10.00	10.2%	67.0%	22.9%	53.4%	46.6%	1,290.00	1,312.37	8,639.67	2,947.97	6,887.69	6,012.31	12,900.00	
W0343	Precast Concrete Pipe Laying $\phi$ 760 (30")	m	10.00	47.3%	8.1%	44.6%	28.7%	71.3%	303.00	1,434.48	244.08	1,351.44	870.97	2,159.03	3,030.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,746.85	8,883.74	4,299.41	7,758.66	8,171.34	15,930.00	
	Components (%)									17.2%	55.8%	27.0%	48.7%	51.3%	100.0%	
	Unit Rate	m								274.17	886.70	429.13	774.41	815.59	1,590.00	

500(1)a6 RCPC Standard Strength (25MPa),  $\phi$ 910mm (36")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0306	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 910 (36")	m	10.00	10.6%	67.4%	22.0%	53.3%	46.7%	1,980.00	2,105.18	13,337.30	4,357.52	10,559.82	9,240.18	19,800.00	
W0344	Precast Concrete Pipe Laying $\phi$ 910 (36")	m	10.00	31.3%	8.6%	60.1%	37.5%	62.5%	516.00	1,614.69	444.41	3,100.89	1,932.96	3,227.04	5,160.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,719.88	13,781.72	7,458.41	12,492.78	12,467.22	24,960.00	
	Components (%)									14.9%	55.2%	29.9%	50.1%	49.9%	100.0%	
	Unit Rate	m								372.58	1,380.38	747.04	1,251.28	1,248.72	2,500.00	

500(1)a7 RCPC Standard Strength (25MPa),  $\phi$ 1070mm (42")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0307	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 1070 (42")	m	10.00	10.6%	67.4%	22.0%	53.3%	46.7%	2,590.00	2,756.89	17,446.53	5,696.58	13,812.53	12,087.47	25,900.00	
W0345	Precast Concrete Pipe Laying $\phi$ 1070 (42")	m	10.00	31.8%	8.6%	59.7%	37.2%	62.8%	594.00	1,886.60	509.07	3,544.33	2,209.78	3,730.22	5,940.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,643.49	17,955.60	9,240.91	16,022.31	15,817.69	31,840.00	
	Components (%)									14.6%	56.4%	29.0%	50.3%	49.7%	100.0%	
	Unit Rate	m								463.77	1,793.30	922.93	1,600.22	1,579.78	3,180.00	



500(1)a8 RCPC Standard Strength (25MPa),  $\phi$ 1220mm (48")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0308	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 1220 (48")	m	10.00	10.6%	67.3%	22.0%	53.3%	46.7%	3,260.00	3,463.18	21,955.87	7,180.95	17,386.73	15,213.27	32,600.00	
W0346	Precast Concrete Pipe Laying $\phi$ 1220 (48")	m	10.00	31.5%	8.6%	59.9%	37.4%	62.6%	665.00	2,093.80	571.58	3,984.63	2,484.02	4,165.98	6,650.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,556.98	22,527.44	11,165.57	19,870.75	19,379.25	39,250.00	
	Components (%)									14.2%	57.4%	28.4%	50.6%	49.4%	100.0%	
	Unit Rate	m								556.41	2,255.61	1,117.98	1,989.61	1,940.39	3,930.00	

500(1)a9 RCPC Standard Strength (25MPa),  $\phi$ 1520mm (60")

Unit: 10.00 m

500(1)AS ACFT Standard Strength (25MPa), $\phi$ 1520mm (60")										Unit: 10.00 m						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0309	Precast Reinforced Concrete Pipe (Standard Strength 25MPa), fabrication $\phi$ 1520 (60")	m	10.00	10.6%	67.4%	22.0%	53.3%	46.7%	4,880.00	5,193.23	32,875.05	10,731.72	26,025.63	22,774.37	48,800.00	
W0347	Precast Concrete Pipe Laying $\phi$ 1520 (60")	m	10.00	27.1%	8.5%	64.4%	39.8%	60.2%	938.00	2,546.27	793.68	6,040.05	3,734.39	5,645.61	9,380.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									7,739.50	33,668.72	16,771.77	29,760.01	28,419.99	58,180.00	
	Components (%)									13.3%	57.5%	28.8%	51.2%	48.8%	100.0%	
	Unit Rate	m								774.22	3,368.03	1,677.75	2,977.02	2,842.98	5,820.00	

500(1)b3 RCPC Standard Strength (32MPa),  $\phi$ 460mm (18")

Unit: 10.00 m

500(193)		RCPC Standard Strength (32MPa), $\phi$ 460mm (18")												Unit: 10.00 m		
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0313	Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 460 (18")	m	10.00	10.5%	68.6%	20.9%	53.5%	46.5%	579.00	608.18	3,969.30	1,212.52	3,098.73	2,691.27	5,790.00	
W0341	Precast Concrete Pipe Laying $\phi$ 460 (18")	m	10.00	47.4%	8.0%	44.6%	28.7%	71.3%	202.00	957.45	162.59	899.96	580.02	1,439.98	2,020.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,565.63	4,131.90	2,112.48	3,678.75	4,131.25	7,810.00	
	Components (%)									20.0%	52.9%	27.0%	47.1%	52.9%	100.0%	
	Unit Rate	m								156.56	413.19	211.25	367.88	413.12	781.00	

500(1)b4 RCPC Standard Strength (32MPa),  $\phi$ 610mm (24")

Unit: 10.00 m

300(17)04		RRC Standard Strength (32MPa, $\phi$ 610mm (24")								Unit: 10.00 m								
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local				
W0314	Precast Reinforced Concrete Pipe (Standard Strength 32MPa, fabrication $\phi$ 610 (24")	m	10.00	10.5%	68.5%	21.0%	53.5%	46.5%	951.00	994.49	6,516.21	1,999.30	5,090.29	4,419.71	9,510.00			
W0342	Precast Concrete Pipe Laying $\phi$ 610 (24")	m	10.00	46.0%	8.2%	45.8%	29.5%	70.5%	246.00	1,132.54	201.69	1,125.77	724.95	1,735.05	2,460.00			
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%		
	Total									2,127.03	6,717.90	3,125.07	5,815.24	6,154.76	11,970.00			
	Components (%)									17.8%	56.1%	26.1%	48.6%	51.4%	100.0%			
	Unit Rate	m								213.24	673.47	313.29	582.98	617.02	1,200.00			

500(1)b5 RCPC Standard Strength (32MPa),  $\phi$ 760mm (30")

Unit: 10.00 m

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0315		Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 760 (30")	m	10.00	10.3%	68.4%	21.2%	53.5%	46.5%	1,330.00	1,373.79	9,102.62	2,823.59	7,121.70	6,178.30	13,300.00	
W0343		Precast Concrete Pipe Laying $\phi$ 760 (30")	m	10.00	47.3%	8.1%	44.6%	28.7%	71.3%	303.00	1,434.48	244.08	1,351.44	870.97	2,159.03	3,030.00	
		Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
		Total									2,808.27	9,346.69	4,175.03	7,992.67	8,337.33	16,330.00	
		Components (%)									17.2%	57.2%	25.6%	48.9%	51.1%	100.0%	
		Unit Rate	m								280.31	932.95	416.74	797.80	832.20	1,630.00	

500(l)b6 RCPC Standard Strength (32MPa),  $\phi$ 910mm (36")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0316	Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 910 (36")	m	10.00	11.0%	68.8%	20.3%	53.4%	46.6%	2,140.00	2,343.54	14,713.21	4,343.25	11,435.48	9,964.52	21,400.00	
W0344	Precast Concrete Pipe Laying $\phi$ 910 (36")	m	10.00	31.3%	8.6%	60.1%	37.5%	62.5%	516.00	1,614.69	444.41	3,100.89	1,932.96	3,227.04	5,160.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,958.24	15,157.62	7,444.14	13,368.44	13,191.56	26,560.00	
	Components (%)									14.9%	57.1%	28.0%	50.3%	49.7%	100.0%	
	Unit Rate	m								396.42	1,518.04	745.54	1,338.86	1,321.14	2,660.00	

500(l)b7 RCPC Standard Strength (32MPa),  $\phi$ 1070mm (42")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0317	Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 1070 (42")	m	10.00	10.9%	68.7%	20.4%	53.5%	46.5%	2,690.00	2,925.65	18,488.63	5,485.72	14,378.50	12,521.50	26,900.00	
W0345	Precast Concrete Pipe Laying $\phi$ 1070 (42")	m	10.00	31.8%	8.6%	59.7%	37.2%	62.8%	594.00	1,886.60	509.07	3,544.33	2,209.78	3,730.22	5,940.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,812.25	18,997.70	9,030.05	16,588.28	16,251.72	32,840.00	
	Components (%)									14.7%	57.6%	27.5%	50.5%	49.5%	100.0%	
	Unit Rate	m								480.64	1,897.46	901.91	1,656.81	1,623.19	3,280.00	

500(l)b8 RCPC Standard Strength (32MPa),  $\phi$ 1220mm (48")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0318	Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 1220 (48")	m	10.00	10.9%	68.7%	20.4%	53.4%	46.6%	3,490.00	3,795.81	23,981.51	7,122.68	18,654.01	16,245.99	34,900.00	
W0346	Precast Concrete Pipe Laying $\phi$ 1220 (48")	m	10.00	31.5%	8.6%	59.9%	37.4%	62.6%	665.00	2,093.80	571.58	3,984.63	2,484.02	4,165.98	6,650.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,889.61	24,553.08	11,107.31	21,138.04	20,411.96	41,550.00	
	Components (%)									14.2%	59.1%	26.7%	50.9%	49.1%	100.0%	
	Unit Rate	m								589.67	2,458.26	1,112.07	2,116.35	2,043.65	4,160.00	

500(l)b9 RCPC Standard Strength (32MPa),  $\phi$ 1520mm (60")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0319	Precast Reinforced Concrete Pipe (Standard Strength 32MPa), fabrication $\phi$ 1520 (60")	m	10.00	10.9%	68.8%	20.3%	53.4%	46.6%	5,190.00	5,677.22	35,687.02	10,535.77	27,735.51	24,164.49	51,900.00	
W0347	Precast Concrete Pipe Laying $\phi$ 1520 (60")	m	10.00	27.1%	8.5%	64.4%	39.8%	60.2%	938.00	2,546.27	793.68	6,040.05	3,734.39	5,645.61	9,380.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									8,223.49	36,480.69	16,575.82	31,469.89	29,810.11	61,280.00	
	Components (%)									13.4%	59.5%	27.0%	51.4%	48.6%	100.0%	
	Unit Rate	m								822.62	3,649.26	1,658.12	3,148.02	2,981.98	6,130.00	

500(l)c3 RCPC Extra Strength (32MPa),  $\phi$ 460mm (18")

Unit: 10.00 m

Item No.		Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
					Component (%)						Component (PP)						
					Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0331		Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 460 (18")	m	10.00	10.5%	68.5%	20.9%	53.5%	46.5%	747.00	785.07	5,120.24	1,564.69	3,997.60	3,472.40	7,470.00	
W0341		Precast Concrete Pipe Laying $\phi$ 460 (18")	m	10.00	47.4%	8.0%	44.6%	28.7%	71.3%	202.00	957.45	162.59	899.96	580.02	1,439.98	2,020.00	
		Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total											1,742.52	5,282.84	2,464.65	4,577.62	4,912.38	9,490.00	
Comments (%)											18.4%	55.7%	26.0%	48.2%	51.8%	100.0%	
Unit Rate											174.25	528.28	246.46	457.76	491.24	949.00	

500(1)c4 RCPC Extra Strength (32MPa),  $\phi$ 610mm (24")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Remarks
				Component (%)							Component (PP)					
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local	Total (PP)	
W0332	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 610 (24")	m	10.00	10.4%	68.5%	21.2%	53.5%	46.5%	1,110.00	1,149.08	7,598.56	2,352.36	5,943.25	5,156.75	11,100.00	
W0342	Precast Concrete Pipe Laying $\phi$ 610 (24")	m	10.00	46.0%	8.2%	45.8%	29.5%	70.5%	246.00	1,132.54	201.69	1,125.77	724.95	1,735.05	2,460.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,281.62	7,800.25	3,478.13	6,668.20	6,891.80	13,560.00	
	Components (%)									16.8%	57.5%	25.6%	49.2%	50.8%	100.0%	
	Unit Rate	m								228.84	782.33	348.84	668.79	691.21	1,360.00	

500(1)c5 RCPC Extra Strength (32MPa),  $\phi$ 760mm (30")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)					Component (PP)								
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
W0333	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 760 (30")	m	10.00	10.5%	68.5%	21.0%	53.5%	46.5%	1,640.00	1,715.15	11,238.74	3,446.11	8,778.26	7,621.74	16,400.00		
W0343	Precast Concrete Pipe Laying $\phi$ 760 (30")	m	10.00	47.3%	8.1%	44.6%	28.7%	71.3%	303.00	1,434.48	244.08	1,351.44	870.97	2,159.03	3,030.00		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%	
	Total									3,149.63	11,482.82	4,797.55	9,649.24	9,780.76	19,430.00		
	Components (%)									16.2%	59.1%	24.7%	49.7%	50.3%	100.0%		
	Unit Rate	m								314.48	1,146.51	479.01	963.43	976.57	1,940.00		

500(1)c6 RCPC Extra Strength (32MPa),  $\phi$ 910mm (36")

Unit: 10.00 m

Unit Rate										Amount						Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0334	Precast Reinforced Concrete Pipe (Extra Strength), fabrication $\phi$ 910 (36")	m	10.00	10.9%	68.4%	20.6%	53.4%	46.6%	2,640.00	2,887.71	18,064.11	5,448.18	14,105.49	12,294.51	26,400.00	
W0344	Precast Concrete Pipe Laying $\phi$ 910 (36")	m	10.00	31.3%	8.6%	60.1%	37.5%	62.5%	516.00	1,614.69	444.41	3,100.89	1,932.96	3,227.04	5,160.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,502.41	18,508.52	8,549.07	16,038.45	15,521.55	31,560.00	
	Components (%)									14.3%	58.6%	27.1%	50.8%	49.2%	100.0%	
	Unit Rate	m								450.81	1,853.20	855.99	1,605.88	1,554.12	3,160.00	

500(1)c7 RCPC Extra Strength (32MPa),  $\phi$ 1070mm (42")

Unit: 10.00 m

UNIT: 10.00																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0335	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 1070 (42")	m	10.00	11.3%	68.7%	20.0%	53.4%	46.6%	3,960.00	4,486.81	27,194.23	7,918.97	21,131.73	18,468.27	39,600.00	
W0345	Precast Concrete Pipe Laying $\phi$ 1070 (42")	m	10.00	31.8%	8.6%	59.7%	37.2%	62.8%	594.00	1,886.60	509.07	3,544.33	2,209.78	3,730.22	5,940.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									6,373.41	27,703.29	11,463.30	23,341.51	22,198.49	45,540.00	
	Components (%)									14.0%	60.8%	25.2%	51.3%	48.7%	100.0%	
	Unit Rate	m								636.78	2,767.90	1,145.32	2,332.10	2,217.90	4,550.00	

500(1)c8 RCPC Extra Strength (32MPa),  $\phi$ 1220mm (48")

Unit: 10.00 m

Sub Item				RCC Extra Strength (32MPa), $\phi$ 1220mm (48")						Unit: 10.00 m						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0336	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 1220 (48")	m	10.00	10.9%	68.4%	20.7%	53.4%	46.6%	4,310.00	4,698.68	29,481.26	8,920.06	23,030.98	20,069.02	43,100.00	
W0346	Precast Concrete Pipe Laying $\phi$ 1220 (48")	m	10.00	31.5%	8.6%	59.9%	37.4%	62.6%	665.00	2,093.80	571.58	3,984.63	2,484.02	4,165.98	6,650.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									6,792.48	30,052.84	12,904.68	25,515.01	24,234.99	49,750.00	
	Components (%)									13.7%	60.4%	25.9%	51.3%	48.7%	100.0%	
	Unit Rate	m								679.93	3,008.30	1,291.77	2,554.07	2,425.93	4,980.00	

500(1)c9 RCPC Extra Strength (32MPa),  $\phi$ 1520mm (60")

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0337	Precast Reinforced Concrete Pipe (Extra Strength 32MPa), fabrication $\phi$ 1520 (60")	m	10.00	11.3%	68.5%	20.2%	53.4%	46.6%	7,480.00	8,460.17	51,257.03	15,082.80	39,916.54	34,883.46	74,800.00	
W0347	Precast Concrete Pipe Laying $\phi$ 1520 (60")	m	10.00	27.1%	8.5%	64.4%	39.8%	60.2%	938.00	2,546.27	793.68	6,040.05	3,734.39	5,645.61	9,380.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									11,006.44	52,050.71	21,122.85	43,650.93	40,529.07	84,180.00	
	Components (%)									13.1%	61.8%	25.1%	51.9%	48.1%	100.0%	
	Unit Rate	m								1,100.91	5,206.31	2,112.79	4,366.13	4,053.87	8,420.00	

502(2)a1 Drop Inlet Manhole for RCPC 1- $\phi$ 460 x 1- $\phi$ 460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.84	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	32.79	1,088.37	214.44	758.73	576.87	1,335.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.82	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	33.36	0.41	177.78	95.27	116.29	211.56	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	0.82	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.63	0.27	0.63	0.49	3.03	3.52	
W0241	Formwork (reinforced concrete 11K4m)	m2	7.83	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,060.80	702.67	13.94	51.51	1,725.90	1,777.41	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	31.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	594.71	605.10	21.59	229.59	991.81	1,221.40	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	43.79	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	157.94	786.86	79.89	551.80	472.89	1,024.69	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	6.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	28.40	301.80	20.80	220.62	130.38	351.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,952.91	3,635.25	544.61	2,012.97	4,119.80	6,132.77	
	Components (%)									31.8%	59.3%	8.9%	32.8%	67.2%	100.0%	
	Unit Rate	each								1,952.03	3,633.61	544.36	2,012.07	4,117.93	6,130.00	

## 502(2)a2 Drop Inlet Manhole for RCPC 1-φ610 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.02	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	39.82	1,321.59	260.39	921.31	700.49	1,621.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	40.69	0.51	216.81	116.19	141.81	258.00	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.20	0.33	0.76	0.60	3.69	4.29	
W0241	Formwork (reinforced concrete H<4m)	m2	9.45	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,280.27	848.05	16.82	62.17	2,082.98	2,145.15	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	34.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	652.27	663.65	23.68	251.81	1,087.79	1,339.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	53.17	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	191.77	955.41	97.00	670.00	574.18	1,244.18	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	6.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	28.40	301.80	20.80	220.62	130.38	351.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										2,278.69	4,241.11	651.81	2,347.65	4,823.96	7,171.61	
Components (%)										31.8%	59.1%	9.1%	32.7%	67.3%	100.0%	
Unit Rate		each								2,278.18	4,240.16	651.66	2,347.13	4,822.87	7,170.00	

## 502(2)a3 Drop Inlet Manhole for RCPC 1-φ760 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.28	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	49.97	1,658.46	326.77	1,156.15	879.05	2,035.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.25	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	50.86	0.63	271.01	145.24	177.26	322.50	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.25	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.00	0.41	0.95	0.75	4.61	5.36	
W0241	Formwork (reinforced concrete H<4m)	m2	12.14	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,644.71	1,089.45	21.61	79.87	2,675.91	2,755.78	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	36.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	690.63	702.69	25.07	266.62	1,151.78	1,418.40	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	60.51	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	218.25	1,087.29	110.39	762.49	653.44	1,415.93	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	7.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	33.13	352.10	24.27	257.39	152.11	409.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										2,733.83	5,040.82	795.61	2,773.46	5,796.80	8,570.26	
Components (%)										31.9%	58.8%	9.3%	32.4%	67.6%	100.0%	
Unit Rate										2,733.74	5,040.67	795.59	2,773.38	5,796.62	8,570.00	

## 502(2)a4 Drop Inlet Manhole for RCPC 1-φ910 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PF)						
				Lab	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.56	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	60.90	2,021.25	398.25	1,409.06	1,071.34	2,480.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.53	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	62.25	0.77	331.72	177.77	216.97	394.74	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.53	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.90	0.50	1.17	0.92	5.64	6.56	
W0241	Formwork (reinforced concrete H(4m)	m2	15.17	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,055.21	1,361.37	27.01	99.80	3,343.79	3,443.59	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	39.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	748.19	761.25	27.16	288.84	1,247.76	1,536.60	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	71.71	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	258.64	1,288.55	130.82	903.62	774.39	1,678.01	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	8.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	37.86	402.40	27.73	294.16	173.84	468.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										3,270.23	5,985.87	959.40	3,279.12	6,936.37	10,215.49	
Components (%)										32.0%	58.6%	9.4%	32.1%	67.9%	100.0%	
Unit Rate		each								3,265.27	5,976.79	957.94	3,274.15	6,925.85	10,200.00	

## 502(2)a5 Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.79	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	69.88	2,319.26	456.96	1,616.81	1,229.29	2,846.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.75	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	71.20	0.89	379.41	203.33	248.17	451.50	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.75	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.60	0.57	1.33	1.05	6.46	7.51	
W0241	Formwork (reinforced concrete H<4m)	m2	17.36	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,351.91	1,557.90	30.91	114.21	3,826.51	3,940.72	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	42.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	805.74	819.81	29.25	311.06	1,343.74	1,654.80	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	76.66	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	276.50	1,377.49	139.85	965.99	827.85	1,793.84	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	9.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	42.60	452.70	31.20	330.93	195.57	526.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										3,665.70	6,678.39	1,084.46	3,648.34	7,780.22	11,428.56	
Components (%)										32.1%	58.4%	9.5%	31.9%	68.1%	100.0%	
Unit Rate		each								3,656.54	6,661.70	1,081.75	3,639.22	7,760.78	11,400.00	

## 502(2)a6 Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.11	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	82.37	2,733.87	538.66	1,905.85	1,449.05	3,354.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.07	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	84.22	1.05	448.79	240.51	293.55	534.06	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.07	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.63	0.68	1.58	1.24	7.64	8.88	
W0241	Formwork (reinforced concrete H<4m)	m2	20.89	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,830.15	1,874.69	37.19	137.44	4,604.59	4,742.03	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	45.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	863.29	878.37	31.34	333.27	1,439.73	1,773.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	84.93	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	306.32	1,526.10	154.94	1,070.20	917.16	1,987.36	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	10.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	47.33	503.00	34.67	367.70	217.30	585.00	
W0716	Steel Gate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,262.59	7,667.52	1,262.71	4,161.17	9,031.65	13,192.82	
	Components (%)									32.3%	58.1%	9.6%	31.5%	68.5%	100.0%	
	Unit Rate	each								4,264.91	7,671.70	1,263.39	4,163.43	9,036.57	13,200.00	

## 502(2)a7 Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.71	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	105.79	3,511.28	691.83	2,447.79	1,861.11	4,308.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.66	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	108.23	1.35	576.71	309.06	377.22	686.28	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.66	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	8.51	0.87	2.03	1.59	9.82	11.41	
W0241	Formwork (reinforced concrete H<4m)	m2	27.39	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,710.76	2,458.00	48.76	180.20	6,037.33	6,217.53	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	50.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	959.21	975.96	34.82	370.31	1,599.69	1,970.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	105.33	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	379.90	1,892.66	192.15	1,327.26	1,137.46	2,464.72	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	11.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	52.06	553.30	38.13	404.47	239.03	643.50	
W0716	Steel Gate for Manhole Inlet, furnish & installation	kg	2.65	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	31.39	44.29	5.41	31.40	49.69	81.09	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,366.75	9,543.20	1,599.98	5,145.65	11,364.28	16,509.93	
	Components (%)									32.5%	57.8%	9.7%	31.2%	68.8%	100.0%	
	Unit Rate	each								5,363.52	9,537.46	1,599.02	5,142.55	11,357.45	16,500.00	

## 502(2)a12 Drop Inlet Manhole for RCPC 1-φ610 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.14	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	44.50	1,477.07	291.03	1,029.70	782.90	1,812.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.12	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	15.57	0.57	242.82	130.13	158.83	288.96	
W0237	Concrete Curing (reinforced concrete)	m3	1.12	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.58	0.37	0.85	0.67	4.13	4.80	
W0241	Formwork (reinforced concrete H<4m)	m2	10.28	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,392.72	922.54	18.30	67.63	2,265.93	2,333.56	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	37.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	709.82	722.21	25.77	274.03	1,183.77	1,457.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	59.70	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	215.33	1,072.74	108.91	752.28	644.70	1,396.98	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	6.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	28.40	301.80	20.80	220.62	130.38	351.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,489.42	4,657.27	725.27	2,587.25	5,284.71	7,871.96	
	Components (%)									31.6%	59.2%	9.2%	32.9%	67.1%	100.0%	
	Unit Rate	each								2,488.80	4,656.11	725.09	2,586.60	5,283.40	7,870.00	

## 502(2)a13 Drop Inlet Manhole for RCPC 1-φ760 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.43	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	55.82	1,852.81	365.06	1,291.64	982.06	2,273.70	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.40	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	56.96	0.71	303.53	162.66	198.54	361.20	
W0237	Concrete Curing (reinforced concrete)	m3	1.40	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.49	0.46	1.07	0.84	5.17	6.01	
W0241	Formwork (reinforced concrete H<4m)	m2	13.14	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,780.19	1,179.20	23.39	86.45	2,896.33	2,982.78	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	39.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	748.19	761.25	27.16	288.84	1,247.76	1,536.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	67.78	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	244.47	1,217.93	123.65	854.10	731.95	1,586.05	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	7.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	33.13	352.10	24.27	257.39	152.11	409.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,972.75	5,524.43	884.92	3,054.10	6,325.00	9,382.10	
	Components (%)									31.7%	58.9%	9.4%	32.6%	67.4%	100.0%	
	Unit Rate	each								2,972.08	5,523.19	884.72	3,053.42	6,326.58	9,380.00	



## 502(2)a14 Drop Inlet Manhole for RCPC 1-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.73	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	67.54	2,241.52	441.65	1,562.61	1,188.09	2,750.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.70	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	69.17	0.86	368.57	197.52	241.08	438.60	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.70	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.44	0.55	1.29	1.02	6.27	7.29	
W0241	Formwork (reinforced concrete H<4m)	m2	16.34	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,213.72	1,466.37	29.09	107.50	3,601.68	3,709.18	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	42.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	805.74	819.81	29.25	311.06	1,343.74	1,654.80	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	78.75	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	284.03	1,415.05	143.66	992.33	850.42	1,842.75	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	8.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	37.86	402.40	27.73	294.16	173.84	468.90	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										3,533.01	6,506.53	1,058.04	3,578.39	7,519.19	11,097.58	
Components (%)										31.8%	58.6%	9.5%	32.2%	67.8%	100.0%	
Unit Rate										3,533.78	6,507.95	1,058.27	3,579.17	7,520.83	11,106.00	

## 502(2)a15 Drop Inlet Manhole for RCPC 1-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.97	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	76.91	2,552.48	502.92	1,779.39	1,352.91	3,132.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.93	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	78.52	0.98	418.44	224.24	273.70	497.94	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.93	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.18	0.63	1.47	1.16	7.12	8.28	
W0241	Formwork (reinforced concrete H<4m)	m2	18.64	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,525.32	1,672.77	33.19	122.63	4,108.65	4,231.28	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	45.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	863.29	878.37	31.34	333.27	1,439.73	1,773.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	85.46	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	308.24	1,535.62	155.91	1,076.88	922.88	1,999.76	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	9.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	42.60	452.70	31.20	330.93	195.57	526.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										3,950.56	7,253.52	1,191.24	3,980.70	8,414.62	12,395.32	
Components (%)										31.9%	58.5%	9.6%	32.1%	67.9%	100.0%	
Unit Rate										3,952.06	7,256.25	1,191.69	3,982.20	8,417.80	12,400.00	

## 502(2)a16 Drop Inlet Manhole for RCPC 1-φ1220 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.32	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	90.57	3,005.96	592.27	2,095.53	1,593.27	3,688.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.27	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	92.36	1.15	492.15	263.75	321.91	585.66	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.27	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	7.27	0.74	1.73	1.36	8.38	9.74	
W0241	Formwork (reinforced concrete H<4m)	m2	22.34	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,026.59	2,004.81	39.77	146.97	4,924.21	5,071.18	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	47.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	901.66	917.40	32.73	348.09	1,503.71	1,851.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	94.49	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	340.81	1,697.88	172.38	1,190.67	1,020.40	2,211.07	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	10.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	47.33	503.00	34.67	367.70	217.30	585.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										4,556.09	8,290.93	1,382.49	4,526.26	9,703.25	14,229.51	Loss 2.0%
Components (%)										32.0%	58.3%	9.7%	31.8%	68.2%	100.0%	
Unit Rate				each						4,546.64	8,273.74	1,379.62	4,516.87	9,683.13	14,200.00	Loss 2.0%

## 502(2)a17 Drop Inlet Manhole for RCPC 1-φ1520 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.96	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	115.55	3,835.20	755.65	2,673.61	2,032.79	4,706.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.90	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	117.99	1.47	628.74	336.95	411.25	748.20	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.90	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	9.28	0.95	2.21	1.74	10.70	12.44	
W0241	Formwork (reinforced concrete H<4m)	m2	29.12	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,945.14	2,613.25	51.85	191.58	6,418.66	6,610.24	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	53.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,016.77	1,034.52	36.91	392.52	1,695.68	2,088.20	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	116.56	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	420.41	2,094.45	212.64	1,468.77	1,258.73	2,727.50	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	11.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	52.06	553.30	38.13	404.47	239.03	643.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.26	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	38.62	54.49	6.65	38.63	61.13	99.76	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										5,726.71	10,293.11	1,742.92	5,581.83	12,180.91	17,762.74	Loss 2.0%
Components (%)										32.2%	57.9%	9.8%	31.4%	68.6%	100.0%	
Unit Rate										5,738.72	10,314.70	1,746.58	5,593.53	12,206.47	17,800.00	Loss 2.0%

502(2) a22 Drop Inlet Manhole for RCPC 2- $\phi$ 610 x 1- $\phi$ 610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.86	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	72.61	2,409.95	474.83	1,680.04	1,277.36	2,957.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.82	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	74.05	0.92	394.59	211.46	258.10	469.56	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.82	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.83	0.59	1.39	1.09	6.72	7.81	
W0241	Formwork (reinforced concrete H(4m)	m2	14.89	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,017.28	1,336.24	26.51	97.96	3,282.07	3,380.03	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	52.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	997.58	1,015.00	36.22	385.12	1,663.68	2,048.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	94.26	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	339.98	1,693.75	171.96	1,187.77	1,017.91	2,205.68	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	6.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	28.40	301.80	20.80	220.62	130.38	351.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	6.37	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	75.46	106.47	12.99	75.49	119.43	194.92	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										3,622.06	6,970.21	1,149.43	3,933.10	7,808.60	11,741.70	Loss 2.0%
Components (%)										30.8%	59.4%	9.8%	33.5%	66.5%	100.0%	
Unit Rate			each							3,609.20	6,945.46	1,145.35	3,919.13	7,780.87	11,700.00	Loss 2.0%

502(2) a23 Drop Inlet Manhole for RCPC 2- $\phi$ 750 x 1- $\phi$ 610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.40	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	93.69	3,109.62	612.69	2,167.79	1,648.21	3,816.00	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.35	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	95.61	1.19	509.50	273.04	333.26	606.30	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.35	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	7.52	0.77	1.79	1.41	8.67	10.08	
W0241	Formwork (reinforced concrete H(4m)	m2	19.96	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,704.16	1,791.23	35.54	131.32	4,399.60	4,530.92	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	58.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,112.69	1,132.12	40.40	429.55	1,855.65	2,285.20	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	112.21	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	404.72	2,016.29	204.71	1,413.96	1,211.75	2,625.71	Loss 2.0%
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	7.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	33.13	352.10	24.27	257.39	152.11	409.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	7.87	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	93.22	131.54	16.05	93.26	147.56	240.82	Loss 2.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										4,555.63	8,640.33	1,455.07	4,841.27	9,809.76	14,651.03	Loss 2.0%
Components (%)										31.1%	59.0%	9.9%	33.0%	67.0%	100.0%	
Unit Rate				each						4,570.85	8,669.21	1,459.94	4,857.46	9,842.54	14,700.00	Loss 2.0%

## 502(2)a24 Drop Inlet Manhole for RCPC 2-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)					Component (PP)					Total (PP)			
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign		Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.99	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	116.72	3,874.07	763.31	2,700.70	2,053.40	4,754.10		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.93	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	119.21	1.48	635.25	340.43	415.51	755.94	Loss 2.0%	
W0237	Concrete Curing (reinforced concrete)	m3	2.93	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	9.38	0.96	2.23	1.75	10.82	12.57		
W0241	Formwork (reinforced concrete H4m)	m2	25.72	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,484.51	2,308.14	45.79	169.21	5,669.23	5,838.44		
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	65.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,246.98	1,268.75	45.27	481.40	2,079.60	2,561.00	Loss 2.0%	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	135.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	486.92	2,425.80	246.28	1,701.14	1,457.86	3,159.00		
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00		
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%	
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	8.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	37.86	402.40	27.73	294.16	173.84	468.00		
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	9.14	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	108.27	152.77	18.65	108.31	171.37	279.68		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%	
Total										5,620.74	10,539.84	1,794.65	5,870.66	12,084.57	17,955.23		
Components (%)										31.3%	58.7%	10.0%	32.7%	67.3%	100.0%		
Unit Rate				each						5,634.75	10,566.12	1,799.12	5,885.30	12,114.70	18,000.00		

## 502(2)a25 Drop Inlet Manhole for RCPC 2-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.51	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	137.02	4,547.82	896.06	3,170.39	2,410.51	5,580.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	3.44	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	139.96	1.74	745.82	399.69	487.83	887.52	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	3.44	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	11.01	1.12	2.62	2.06	12.70	14.76	
W0241	Formwork (reinforced concrete H4m)	m2	30.40	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,118.55	2,728.12	54.12	200.00	6,700.80	6,900.80	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	71.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,362.08	1,385.87	49.45	525.83	2,271.57	2,797.40	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	152.15	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	548.77	2,733.97	277.57	1,917.25	1,643.06	3,560.31	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	9.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	42.60	452.70	31.20	330.93	195.57	526.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	10.42	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	123.43	174.16	21.26	123.48	195.37	318.85	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										6,494.32	12,130.98	2,088.23	6,743.19	13,970.35	20,713.54	
Components (%)										31.4%	58.6%	10.1%	32.6%	67.4%	100.0%	
Unit Rate				each						6,490.08	12,123.06	2,086.87	6,738.78	13,961.22	20,700.00	

## 502(2)a26 Drop Inlet Manhole for RCPC 2-φ1220 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.18	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	163.18	5,415.92	1,067.10	3,775.56	2,870.64	6,646.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.10	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	166.81	2.07	888.91	476.37	581.43	1,057.80	
W0237	Concrete Curing (reinforced concrete)	m3	4.10	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	13.13	1.34	3.12	2.45	15.14	17.59	
W0241	Formwork (reinforced concrete H<4m)	m2	37.30	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	5,053.36	3,347.33	66.41	245.40	8,221.70	8,467.10	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	78.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,496.37	1,522.50	54.33	577.68	2,495.52	3,073.20	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	171.81	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	619.68	3,087.23	313.43	2,164.98	1,855.37	4,020.35	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	10.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	47.33	503.00	34.67	367.70	217.30	585.00	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	11.91	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	141.08	199.07	24.30	141.14	223.31	364.45	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										7,711.83	14,183.96	2,462.40	7,824.84	16,533.35	24,358.19	
Components (%)										31.7%	58.2%	10.1%	32.1%	67.9%	100.0%	
Unit Rate			each							7,725.07	14,208.30	2,466.63	7,838.27	16,561.73	24,400.00	

## 502(2)a27 Drop Inlet Manhole for RCPC 2-φ1520 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PT)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	5.52	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	215.49	7,152.12	1,409.19	4,985.91	3,790.89	8,776.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	5.41	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	220.11	2.74	1,172.93	628.58	767.20	1,395.78	
W0237	Concrete Curing (reinforced concrete)	m3	5.41	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	17.32	1.77	4.12	3.24	19.97	23.21	
W0241	Formwork (reinforced concrete H<4m)	m2	50.80	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	6,882.32	4,558.84	90.44	334.21	11,197.39	11,531.60	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	90.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,726.59	1,756.73	62.68	666.55	2,879.45	3,546.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	217.77	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	785.45	3,913.09	397.28	2,744.13	2,351.69	5,095.82	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	Loss 2.0%
W0711	Iron Step for Drop Inlet Manholes, furnish & installation	each	11.00	8.1%	86.0%	5.9%	62.9%	37.1%	58.50	52.06	553.30	38.13	404.47	239.03	643.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	14.44	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	171.05	241.35	29.46	171.12	270.74	441.86	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										10,081.28	18,285.42	3,214.37	10,011.76	21,569.31	31,581.07	
Components (%)										31.9%	57.9%	10.2%	31.7%	68.3%	100.0%	
Unit Rate			each							10,087.32	18,296.38	3,216.30	10,017.77	21,582.23	31,600.00	

## 502(2)b1 Special Junction Box Manhole for RCPC 1-φ460 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)					Component (PP)								
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local	Total (PP)		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.44	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	17.18	570.10	112.33	397.43	302.17	699.60		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.43	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	17.50	0.22	93.23	49.96	60.98	110.94	Loss 2.0%	
W0237	Concrete Curing (reinforced concrete)	m3	0.43	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.37	0.14	0.33	0.26	1.58	1.84		
W0241	Formwork (reinforced concrete H<4m)	m2	2.93	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	396.95	262.94	5.22	19.28	645.83	665.11		
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	94.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,803.32	1,834.81	65.47	696.17	3,007.43	3,703.60	Loss 2.0%	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	77.75	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	280.43	1,397.08	141.84	979.73	839.62	1,819.35		
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00		
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00		
Total										2,576.78	4,654.73	457.92	2,563.74	5,125.70	7,689.44		
Components (%)										33.5%	60.5%	6.0%	33.3%	66.7%	100.0%		
Unit Rate		each								2,576.97	4,655.07	457.96	2,563.93	5,126.07	7,690.00		

## 502(2)b2 Special Junction Box Manhole for RCPC 1-φ610 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)					Labor		Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local			Material	Equipment	Foreign	Local			
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	0.58	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	22.64	751.49	148.07	523.88	398.32	922.20		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.57	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	23.19	0.29	123.58	66.23	80.83	147.06	Loss 2.0%	
W0237	Concrete Curing (reinforced concrete)	m3	0.57	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.83	0.19	0.44	0.34	2.11	2.45		
W0241	Formwork (reinforced concrete H<4m)	m2	4.12	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	558.17	369.73	7.34	27.11	908.13	935.24		
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	102.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,956.80	1,990.96	71.04	755.42	3,263.38	4,018.80	Loss 2.0%	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	90.31	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	325.73	1,622.77	164.75	1,138.00	975.25	2,113.25		
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00		
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00		
Total										2,948.39	5,324.88	554.73	2,931.89	5,896.11	8,828.00		
Components (%)										33.4%	60.3%	6.3%	33.2%	66.8%	100.0%		
Unit Rate										2,949.06	5,326.08	554.86	2,932.56	5,897.44	8,830.00		

## 502(2)b3 Special Junction Box Manhole for RCPC 1-φ760 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PT)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.81	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	31.62	1,049.50	206.78	731.63	556.27	1,287.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.79	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	32.14	0.40	171.28	91.79	112.03	203.82	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	0.79	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.53	0.26	0.60	0.47	2.92	3.39	
W0241	Formwork (reinforced concrete H<4m)	m2	6.40	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	867.06	574.34	11.39	42.11	1,410.69	1,452.80	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	109.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,091.09	2,127.60	75.92	807.27	3,487.33	4,294.60	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	98.93	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	356.82	1,777.66	180.48	1,246.62	1,068.34	2,314.96	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	10.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	47.39	465.31	32.30	340.25	204.75	545.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										3,446.04	6,165.73	689.20	3,374.82	6,926.15	10,300.97	
Components (%)										33.5%	59.9%	6.7%	32.8%	67.2%	100.0%	
Unit Rate		each								3,445.71	6,165.15	689.14	3,374.50	6,925.50	10,300.00	

## 502(2)b4 Special Junction Box Manhole for RCPC 1-φ910 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.06	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	41.38	1,373.41	270.60	957.44	727.96	1,685.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.04	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	42.31	0.53	225.48	120.84	147.48	268.32	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.04	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.33	0.34	0.79	0.62	3.84	4.46	
W0241	Formwork (reinforced concrete 1K4m)	m2	8.99	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,217.95	806.77	16.01	59.15	1,981.58	2,040.73	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	117.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,244.56	2,283.75	81.49	866.51	3,743.29	4,609.80	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	111.37	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	401.69	2,001.20	203.17	1,403.38	1,202.68	2,606.06	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	11.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	52.13	511.84	35.53	374.28	225.22	599.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										4,020.74	7,148.51	843.52	3,896.90	8,115.87	12,012.77	
Components (%)										33.5%	59.5%	7.0%	32.4%	67.6%	100.0%	
Unit Rate										4,016.46	7,140.91	842.63	3,892.76	8,107.24	12,000.00	

## 502(2)b5 Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Remarks
				Component (%)					Component (PP)					Total (PP)			
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign		Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.24	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	48.41	1,606.64	316.56	1,120.02	851.58	1,971.60		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.22	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	49.64	0.62	264.51	141.75	173.01	314.75	Loss 2.0%	
W0237	Concrete Curing (reinforced concrete)	m3	1.22	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.90	0.40	0.93	0.73	4.50	5.23		
W0241	Formwork (reinforced concrete H4m)	m2	10.75	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,456.40	964.71	19.14	70.72	2,369.53	2,440.25		
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	126.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,417.22	2,459.42	87.76	933.17	4,031.23	4,964.40	Loss 2.0%	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	118.57	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	427.66	2,130.57	216.31	1,494.10	1,280.44	2,774.54		
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00		
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	12.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	56.87	558.37	38.76	408.30	245.70	654.00		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00		
	Total									4,477.47	7,891.41	954.40	4,283.49	9,039.79	13,323.28		
	Components (%)									33.6%	59.2%	7.2%	32.2%	67.8%	100.0%		
	Unit Rate	each								4,469.65	7,877.62	952.73	4,276.01	9,023.99	13,300.00		

## 502(2)b6 Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.54	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	60.12	1,995.34	393.14	1,391.00	1,057.60	2,448.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.51	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	61.44	0.76	327.38	175.44	214.14	389.58	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.51	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.84	0.49	1.15	0.90	5.58	6.48	
W0241	Formwork (reinforced concrete H<4m)	m2	13.85	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,876.38	1,242.91	24.66	91.12	3,052.83	3,143.95	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	134.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,570.69	2,615.58	93.33	992.42	4,287.18	5,279.60	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	127.59	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	460.19	2,292.65	232.76	1,607.77	1,377.84	2,985.61	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	13.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	61.61	604.91	41.99	442.33	266.17	708.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										5,112.65	8,923.31	1,124.86	4,815.67	10,345.15	15,160.82	
Components (%)										33.7%	58.9%	7.4%	31.8%	68.2%	100.0%	
Unit Rate		each								5,125.86	8,946.37	1,127.77	4,828.11	10,371.89	15,200.00	



## 502(2)b7 Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.36	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	92.13	3,057.79	602.48	2,131.66	1,620.74	3,752.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.31	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	93.99	1.17	500.83	268.40	327.58	595.98	
W0237	Concrete Curing (reinforced concrete)	m3	2.31	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	7.40	0.75	1.76	1.38	8.53	9.91	
W0241	Formwork (reinforced concrete H<4m)	m2	19.81	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,683.83	1,777.77	35.27	130.33	4,366.54	4,496.87	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	149.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,858.46	2,908.37	103.77	1,103.51	4,767.09	5,870.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	522.02	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,882.82	9,380.13	952.33	6,577.99	5,637.28	12,215.27	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	14.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	66.35	651.44	45.21	476.35	286.65	763.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										7,702.35	17,948.08	2,252.10	10,804.30	17,098.23	27,902.53	
Components (%)										27.6%	64.3%	8.1%	38.7%	61.3%	100.0%	
Unit Rate				each						7,701.65	17,946.45	2,251.90	10,803.32	17,096.68	27,900.00	

## 502(2)b12 Special Junction Box Manhole for RCPC 1-φ610 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.67	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	26.16	868.10	171.04	605.17	460.13	1,065.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.66	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	26.85	0.33	143.09	76.68	93.60	170.28	
W0237	Concrete Curing (reinforced concrete)	m3	0.66	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.11	0.22	0.50	0.39	2.44	2.83	
W0241	Formwork (reinforced concrete H<4m)	m2	4.51	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	611.01	404.73	8.03	29.67	994.10	1,023.77	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	110.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,110.27	2,147.12	76.61	814.67	3,519.33	4,334.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	100.94	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	364.07	1,813.78	184.15	1,271.95	1,090.05	2,362.00	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									3,200.50	5,823.73	622.95	3,219.46	6,427.72	9,647.18	
	Components (%)									33.2%	60.4%	6.5%	33.4%	66.6%	100.0%	
	Unit Rate	each								3,201.44	5,825.43	623.13	3,220.40	6,429.60	9,650.00	

## 502(2)b13 Special Junction Box Manhole for RCPC 1-φ760 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.92	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	35.92	1,192.02	234.86	830.99	631.81	1,462.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.90	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	36.62	0.46	195.13	104.57	127.63	232.20	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	0.90	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.88	0.29	0.69	0.54	3.32	3.86	
W0241	Formwork (reinforced concrete H<4m)	m2	6.97	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	944.29	625.49	12.41	45.86	1,536.33	1,582.19	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	117.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,244.56	2,283.75	81.49	866.51	3,743.29	4,609.80	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	110.23	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	397.58	1,980.71	201.09	1,389.01	1,190.37	2,579.38	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special function Box Manholes, furnish & installation	each	10.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	47.39	465.31	32.30	340.25	204.75	545.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										3,726.61	6,718.70	768.42	3,692.41	7,521.32	11,213.73	
Components (%)										33.2%	59.9%	6.9%	32.9%	67.1%	100.0%	
Unit Rate		each								3,722.05	6,710.48	767.48	3,687.89	7,512.11	11,200.00	

## 502(2)b14 Special Junction Box Manhole for RCPC 1-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.19	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	46.46	1,541.85	303.79	1,074.86	817.24	1,892.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.17	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	47.60	0.59	253.67	135.94	165.92	301.86	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.17	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.75	0.38	0.89	0.70	4.32	5.02	
W0241	Formwork (reinforced concrete H<4m)	m2	9.73	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,318.21	873.18	17.32	64.01	2,144.70	2,208.71	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	126.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,417.22	2,459.42	87.76	933.17	4,031.23	4,964.40	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	121.78	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	439.23	2,188.25	222.16	1,534.55	1,315.10	2,849.65	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	11.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	52.13	511.84	35.53	374.28	225.22	599.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									4,341.98	7,746.19	931.57	4,232.20	8,787.54	13,019.74	
	Components (%)									33.3%	59.5%	7.2%	32.5%	67.5%	100.0%	
	Unit Rate	each								4,335.40	7,734.45	930.16	4,225.79	8,774.21	13,000.00	

## 502(2)b15 Special Junction Box Manhole for RCPC 1-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.41	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	55.04	1,826.90	359.96	1,273.58	968.32	2,241.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.38	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	56.15	0.70	299.19	160.34	195.70	356.04	
W0237	Concrete Curing (reinforced concrete)	m3	1.38	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.42	0.45	1.05	0.83	5.09	5.92	
W0241	Formwork (reinforced concrete H<4m)	m2	11.60	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,571.55	1,040.99	20.65	76.32	2,556.88	2,633.20	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	134.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,570.69	2,615.58	93.33	992.42	4,287.18	5,279.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	131.50	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	474.29	2,362.91	239.90	1,657.03	1,420.07	3,077.10	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	12.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	56.87	558.37	38.76	408.30	245.70	654.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									4,806.40	8,576.57	1,063.29	4,683.50	9,762.76	14,446.26	
	Components (%)									33.3%	59.4%	7.4%	32.4%	67.6%	100.0%	
	Unit Rate	each								4,791.01	8,549.11	1,059.88	4,668.50	9,731.50	14,400.00	

## 502(2)b16 Special Junction Box Manhole for RCPC 1-φ1220 x 1-φ610

Unit: 1.00 each

Special Junction Box Manhole for R.C.C. 1.5m x 1.5m x 1.5m																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.71	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	66.76	2,215.60	436.54	1,544.55	1,174.35	2,718.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.68	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	68.35	0.85	364.24	195.20	238.24	433.44	
W0237	Concrete Curing (reinforced concrete)	m3	1.68	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.38	0.55	1.28	1.01	6.20	7.21	
W0241	Formwork (reinforced concrete H<4m)	m2	14.87	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,014.57	1,334.45	26.47	97.83	3,277.66	3,375.49	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	142.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,724.17	2,771.73	98.90	1,051.67	4,543.13	5,594.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	141.23	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	509.39	2,537.75	257.65	1,779.64	1,525.14	3,304.78	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	13.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	61.61	604.91	41.99	442.33	266.17	708.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									5,467.60	9,636.50	1,237.52	5,226.91	11,114.71	16,341.62	
	Components (%)									33.5%	59.0%	7.6%	32.0%	68.0%	100.0%	
	Unit Rate	each								5,453.68	9,611.96	1,234.37	5,213.59	11,086.41	16,300.00	

## 502(2)b17 Special Junction Box Manhole for RCPC 1-φ1520 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.59	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	101.11	3,355.80	661.19	2,339.40	1,778.70	4,118.10	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.54	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	103.34	1.28	550.69	295.12	360.20	655.32	
W0237	Concrete Curing (reinforced concrete)	m3	2.54	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	8.13	0.83	1.94	1.52	9.38	10.90	
W0241	Formwork (reinforced concrete 114mm)	m2	21.11	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,859.96	1,894.43	37.58	138.88	4,653.09	4,791.97	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	158.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,031.12	3,084.04	110.04	1,170.16	5,055.04	6,225.20	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	565.09	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	2,038.16	10,154.05	1,030.90	7,120.71	6,102.40	13,223.11	0.0%
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	14.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	66.35	651.44	45.21	476.35	286.65	763.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										8,225.55	19,312.53	2,448.02	11,656.85	18,329.25	29,986.10	
Components (%)										27.4%	64.4%	8.2%	38.9%	61.1%	100.0%	
Unit Rate										8,229.36	19,321.49	2,449.15	11,662.25	18,337.75	30,000.00	

## 502(2)b21 Special Junction Box Manhole for RCPC 2-φ460 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.70	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.33	906.97	178.70	632.27	480.73	1,113.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.69	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.07	0.35	149.60	80.17	97.85	178.02	
W0237	Concrete Curing (reinforced concrete)	m3	0.69	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.21	0.23	0.53	0.41	2.55	2.96	
W0241	Formwork (reinforced concrete H<4m)	m2	3.95	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	535.14	354.48	7.03	25.99	870.66	896.65	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	122.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,340.48	2,381.35	84.97	903.54	3,903.26	4,806.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	109.66	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	395.52	1,970.47	200.05	1,381.83	1,184.21	2,566.04	0.0%
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										3,388.79	6,203.28	660.40	3,445.13	6,807.34	10,252.47	
Components (%)										33.1%	60.5%	6.4%	33.6%	66.4%	100.0%	
Unit Rate										3,404.50	6,232.04	663.46	3,461.10	6,838.90	10,300.00	

502(2)b22 Special Junction Box Manhole for RCPC 2- $\phi$ 610 x 1- $\phi$ 460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.97	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	37.87	1,256.80	247.63	876.15	666.15	1,542.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.95	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	38.65	0.48	205.97	110.38	134.72	245.10	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	0.95	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.04	0.31	0.72	0.57	3.51	4.08	
W0241	Formwork (reinforced concrete H<4m)	m2	5.83	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	789.84	523.19	10.38	38.36	1,285.05	1,323.41	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	140.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,685.80	2,732.69	97.51	1,036.85	4,479.15	5,516.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	131.77	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	475.27	2,367.76	240.39	1,660.44	1,422.98	3,083.42	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										4,090.51	7,470.69	842.12	4,143.66	8,259.65	12,403.31	
Components (%)										33.0%	60.2%		33.4%	66.6%	100.0%	
Unit Rate		each								4,089.41	7,468.70	841.89	4,142.55	8,257.45	12,400.00	

502(2)b23 Special Junction Box Manhole for RCPC 2- $\phi$ 760 x 1- $\phi$ 460

Unit: 1.00 each

Special Junction Box Manhole for Rect 2' x 7'00" x 1' x 1'00"																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.37	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	53.48	1,775.07	349.74	1,237.45	940.85	2,178.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.34	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	54.52	0.68	290.52	155.69	190.03	345.72	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.34	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.29	0.44	1.02	0.80	4.95	5.75	
W0241	Formwork (reinforced concrete H<4m)	m2	9.44	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,278.92	847.15	16.81	62.11	2,080.77	2,142.88	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	158.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,031.12	3,084.04	110.04	1,170.16	5,055.04	6,225.20	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	151.07	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	544.88	2,714.56	275.60	1,903.64	1,631.40	3,535.04	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	10.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	47.39	465.31	32.30	340.25	204.75	545.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										5,031.98	9,057.93	1,086.48	4,984.79	10,191.60	15,176.39	
Components (%)										33.2%	59.7%	7.2%	32.8%	67.2%	100.0%	
Unit Rate		each								5,039.81	9,072.02	1,088.17	4,992.54	10,207.46	15,200.00	

## 502(2)b24 Special Junction Box Manhole for RCPC 2-φ910 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.82	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	71.05	2,358.13	464.62	1,643.91	1,249.89	2,893.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.78	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	72.42	0.90	385.92	206.82	252.42	459.24	
W0237	Concrete Curing (reinforced concrete)	m3	1.78	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.70	0.58	1.36	1.07	6.57	7.64	
W0241	Formwork (reinforced concrete H<4m)	m2	13.69	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,854.70	1,228.55	24.37	90.07	3,017.56	3,107.63	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	176.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,376.43	3,435.39	122.58	1,303.47	5,630.93	6,934.40	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	175.62	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	633.43	3,155.70	320.39	2,212.99	1,896.52	4,109.51	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	11.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	52.13	511.84	35.53	374.28	225.22	599.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									6,083.25	10,861.76	1,365.21	5,947.29	12,352.93	18,310.22	
	Components (%)									33.2%	59.3%	7.5%	32.5%	67.5%	100.0%	
	Unit Rate	each								6,079.85	10,855.70	1,364.45	5,943.97	12,356.03	18,300.00	

## 502(2)b25 Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.20	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	85.88	2,850.48	561.63	1,987.14	1,510.86	3,498.00	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.16	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	87.88	1.09	468.30	250.97	306.31	557.28	
W0237	Concrete Curing (reinforced concrete)	m3	2.16	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.92	0.71	1.65	1.29	7.98	9.27	
W0241	Formwork (reinforced concrete 1K4m)	m2	16.98	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,300.43	1,523.80	30.23	111.71	3,742.75	3,854.46	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	196.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,760.12	3,825.77	136.51	1,451.60	6,270.80	7,722.40	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	12.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	43.28	215.63	21.89	151.21	129.59	280.80	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	12.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	56.87	558.37	38.76	408.30	245.70	654.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									6,358.76	9,146.52	1,269.42	4,476.91	12,297.80	16,774.71	
	Components (%)									37.9%	54.5%	7.6%	26.7%	73.3%	100.0%	
	Unit Rate	each								6,368.35	9,160.31	1,271.34	4,483.66	12,316.34	16,800.00	

## 502(2)b26 Special Junction Box Manhole for RCPC 2-φ1220 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Total (PP)	Remarks
				Component (%)							Component (PP)							
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local				
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%		
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00			
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00			
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00			
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.73	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	106.57	3,537.19	696.93	2,465.86	1,874.84	4,340.70			
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.68	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	109.04	1.36	581.04	311.39	380.05	691.44			
W0237	Concrete Curing (reinforced concrete)	m3	2.68	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	8.58	0.88	2.04	1.60	9.90	11.50			
W0241	Formwork (reinforced concrete H<4m)	m2	22.37	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,030.66	2,007.50	39.83	147.17	4,930.82	5,077.99	Loss 2.0%		
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	214.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	4,105.44	4,177.12	149.05	1,584.91	6,846.69	8,431.60			
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	214.83	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	774.85	3,860.26	391.92	2,707.08	2,319.94	5,027.02			
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00			
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%		
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	13.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	61.61	604.91	41.99	442.33	266.17	708.50			
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00			
	Total									8,214.13	14,359.87	1,913.25	7,775.02	16,712.23	24,487.25			
	Components (%)									33.6%	58.6%	7.8%	31.8%	68.2%	100.0%			
	Unit Rate	each								8,218.41	14,367.35	1,914.24	7,779.07	16,720.93	24,500.00			

## 502(2)b27 Special Junction Box Manhole for RCPC 2-φ1520 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		Total (PP)
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.23	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	165.13	5,480.70	1,079.87	3,820.73	2,904.97	6,725.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.15	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	168.85	2.10	899.75	482.18	588.52	1,070.70	
W0237	Concrete Curing (reinforced concrete)	m3	4.15	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	13.28	1.35	3.16	2.48	15.32	17.80	
W0241	Formwork (reinforced concrete H<4m)	m2	33.17	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,493.83	2,976.70	59.06	218.23	7,311.36	7,529.59	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	250.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	4,796.07	4,879.81	174.12	1,851.53	7,998.47	9,850.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	855.48	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	3,085.54	15,372.03	1,560.66	10,779.92	9,238.31	20,018.23	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	14.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	66.35	651.44	45.21	476.35	286.65	763.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									12,806.43	29,534.81	3,832.28	17,746.11	28,427.41	46,173.52	
	Components (%)									27.7%	64.0%	8.3%	38.4%	61.6%	100.0%	
	Unit Rate	each								12,813.78	29,551.75	3,834.48	17,756.28	28,443.72	46,200.00	

## 502(2)b32 Special Junction Box Manhole for RCPC 2-φ610 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.12	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	43.72	1,451.16	285.92	1,011.63	769.17	1,780.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.10	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	44.76	0.56	238.49	127.81	155.99	283.80	
W0237	Concrete Curing (reinforced concrete)	m3	1.10	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.52	0.36	0.84	0.66	4.06	4.72	
W0241	Formwork (reinforced concrete H<4m)	m2	6.38	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	864.35	572.55	11.36	41.97	1,406.29	1,448.26	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	149.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,858.46	2,908.37	103.77	1,103.51	4,767.09	5,870.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	143.99	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	519.34	2,587.34	262.68	1,814.42	1,554.95	3,369.37	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	9.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	42.65	418.78	29.07	306.23	184.27	490.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									4,394.19	8,109.78	942.58	4,520.92	8,925.63	13,446.55	
	Components (%)									32.7%	60.3%	7.0%	33.6%	66.4%	100.0%	
	Unit Rate	each								4,378.98	8,081.70	939.32	4,505.27	8,894.73	13,400.00	

## 502(2)b33 Special Junction Box Manhole for RCPC 2-φ760 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.56	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	60.90	2,021.25	398.25	1,409.06	1,071.34	2,480.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.53	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	62.25	0.77	331.72	177.77	216.97	394.74	
W0237	Concrete Curing (reinforced concrete)	m3	1.53	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	4.90	0.50	1.17	0.92	5.64	6.56	
W0241	Formwork (reinforced concrete H<4m)	m2	10.20	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,381.88	915.36	18.16	67.11	2,248.29	2,315.40	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	167.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,203.77	3,259.71	116.31	1,236.82	5,342.98	6,579.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	164.95	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	594.94	2,963.97	300.92	2,078.54	1,781.29	3,859.83	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	10.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	47.39	465.31	32.30	340.25	204.75	545.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									5,373.42	9,797.54	1,209.27	5,425.15	10,955.08	16,380.23	
	Components (%)									32.8%	59.6%	7.4%	33.1%	66.9%	100.0%	
	Unit Rate	each								5,379.90	9,809.37	1,210.73	5,431.70	10,968.30	16,400.00	



## 502(2)b34 Special Junction Box Manhole for RCPC 2-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.04	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	79.64	2,643.18	520.79	1,842.62	1,400.98	3,243.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	81.37	1.01	433.62	232.38	283.62	516.00	
W0237	Concrete Curing (reinforced concrete)	m3	2.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.40	0.65	1.52	1.20	7.38	8.58	
W0241	Formwork (reinforced concrete H<4m)	m2	14.67	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,987.47	1,316.50	26.12	96.51	3,233.58	3,330.09	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	185.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,549.09	3,611.06	128.85	1,370.13	5,918.87	7,289.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	191.38	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	690.27	3,438.89	349.14	2,411.58	2,066.71	4,478.29	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	11.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	52.13	511.84	35.53	374.28	225.22	599.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									6,463.76	11,693.80	1,506.01	6,443.39	13,220.17	19,663.56	
	Components (%)									32.9%	59.5%	7.7%	32.8%	67.2%	100.0%	
	Unit Rate	each								6,475.74	11,715.47	1,508.80	6,455.33	13,244.67	19,700.00	

## 502(2)b35 Special Junction Box Manhole for RCPC 2-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.46	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	96.03	3,187.36	628.01	2,221.98	1,689.42	3,911.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.41	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	98.05	1.22	522.51	280.01	341.77	621.78	
W0237	Concrete Curing (reinforced concrete)	m3	2.41	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	7.72	0.79	1.84	1.44	8.90	10.34	
W0241	Formwork (reinforced concrete H<4m)	m2	18.10	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,452.16	1,624.31	32.23	119.08	3,989.62	4,108.70	Loss 2.0%
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	204.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	3,913.59	3,981.93	142.08	1,510.85	6,526.75	8,037.60	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	215.31	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	776.58	3,868.88	392.79	2,713.12	2,325.13	5,038.25	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	12.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	56.87	558.37	38.76	408.30	245.70	654.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									7,418.39	13,393.52	1,768.66	7,369.48	15,211.09	22,580.57	
	Components (%)									32.9%	59.3%	7.8%	32.6%	67.4%	100.0%	
	Unit Rate	each								7,424.78	13,405.05	1,770.18	7,375.82	15,224.18	22,600.00	

502(2)b36 Special Junction Box Manhole for RCPC 2- $\phi$ 1220 x 1- $\phi$ 610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.03	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	118.29	3,925.89	773.52	2,736.83	2,080.87	4,817.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.97	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	120.84	1.50	643.92	345.08	421.18	766.26	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.97	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	9.51	0.97	2.26	1.78	10.96	12.74	
W0241	Formwork (reinforced concrete H<4m)	m2	23.72	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,213.56	2,128.65	42.23	156.05	5,228.39	5,384.44	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	222.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	4,258.91	4,333.27	154.62	1,644.16	7,102.64	8,746.80	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	235.64	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	849.91	4,234.19	429.88	2,969.31	2,544.67	5,513.98	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	13.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	61.61	604.91	41.99	442.33	266.17	708.50	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										8,649.99	15,400.06	2,098.87	8,410.22	17,738.70	26,148.92	
Components (%)										33.1%	58.9%	8.0%	32.2%	67.8%	100.0%	
Unit Rate		each								8,633.81	15,371.25	2,094.94	8,394.49	17,705.51	26,100.00	

502(2)b37 Special Junction Box Manhole for RCPC 2- $\phi$ 1520 x 1- $\phi$ 610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.60	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	179.58	5,960.10	1,174.32	4,154.93	3,159.07	7,314.00	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.51	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	183.50	2.28	977.80	524.01	639.57	1,163.58	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	4.51	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	14.44	1.47	3.44	2.70	16.65	19.35	
W0241	Formwork (reinforced concrete H<4m)	m2	34.87	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,724.14	3,129.26	62.08	229.41	7,686.08	7,915.49	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	258.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	4,949.54	5,035.97	179.69	1,910.78	8,254.42	10,165.20	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	894.59	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	3,226.60	16,074.80	1,632.01	11,272.75	9,660.66	20,933.41	
W0703	Precast Concrete Cover (680x580x75), furnish	each	1.00	4.3%	90.8%	5.0%	60.7%	39.3%	188.00	8.01	170.67	9.33	114.13	73.87	188.00	
W0704	Precast Concrete Cover (680x580x75), installation	each	1.00	89.3%	0.0%	10.7%	5.4%	94.6%	10.50	9.38	0.00	1.13	0.56	9.94	10.50	Loss 2.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	14.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	66.35	651.44	45.21	476.35	286.65	763.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										13,361.53	31,025.99	4,085.01	18,685.61	29,786.92	48,472.53	
Components (%)										27.6%	64.0%	8.4%	38.5%	61.5%	100.0%	
Unit Rate		each								13,369.10	31,043.57	4,087.33	18,696.20	29,803.80	48,500.00	

## 502(2)c1 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ460 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.47	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	116.49	61.45	243.18	171.51	249.61	421.12	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.47	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	10.69	8.35	45.82	30.32	34.54	64.86	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	42.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	805.74	819.81	29.25	311.06	1,343.74	1,654.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.23	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	8.98	298.01	58.72	207.75	157.95	365.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.23	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	9.36	0.12	49.87	26.72	32.62	59.34	
W0237	Concrete Curing (reinforced concrete)	m3	0.23	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	0.74	0.08	0.18	0.14	0.85	0.99	
W0241	Formwork (reinforced concrete H<4m)	m2	2.13	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	288.57	191.15	3.79	14.01	469.50	483.51	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	19.36	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	69.83	347.87	35.32	243.95	209.07	453.02	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	3.76	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	44.54	62.85	7.67	44.56	70.50	115.06	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										1,384.77	2,081.28	496.84	1,259.68	2,703.22	3,962.90	
Components (%)										34.9%	52.5%	12.5%	31.8%	68.2%	100.0%	
Unit Rate		each								1,383.76	2,079.76	496.48	1,258.76	2,701.24	3,960.00	

## 502(2)c2 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.53	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	131.36	69.30	274.22	193.41	281.47	474.88	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.53	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	12.05	9.41	51.67	34.19	38.95	73.14	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	45.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	863.29	878.37	31.34	333.27	1,439.73	1,773.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.28	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	10.93	362.79	71.48	252.91	192.29	445.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.27	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	10.99	0.14	58.54	31.37	38.29	69.66	
W0237	Concrete Curing (reinforced concrete)	m3	0.27	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	0.87	0.09	0.21	0.16	1.00	1.16	
W0241	Formwork (reinforced concrete H<4m)	m2	2.36	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	319.73	211.79	4.20	15.53	520.19	535.72	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	21.63	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	78.01	388.67	39.46	272.56	233.58	506.14	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	4.52	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	53.54	75.55	9.22	53.56	84.75	138.31	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									1,510.62	2,287.70	563.39	1,396.62	2,965.09	4,361.71	
	Components (%)									34.6%	52.4%	12.9%	32.0%	68.0%	100.0%	
	Unit Rate	each								1,510.02	2,286.80	563.17	1,396.07	2,963.93	4,360.00	

## 502(2)c3 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ760 x 1-φ460

Unit: 1.00 each

Unit Rate																	Amount					Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)							
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local								
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.59	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	146.24	77.14	305.26	215.30	313.34	528.64	Less 2.0%						
W0025	Disposal of Demolished Debris	m3	0.59	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	13.42	10.48	57.52	38.07	43.35	81.42							
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	49.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	940.03	956.44	34.13	362.90	1,567.70	1,930.60							
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.32	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	12.49	414.62	81.69	289.04	219.76	508.80							
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.31	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	12.61	0.16	67.21	36.02	43.96	79.98							
W0237	Concrete Curing (reinforced concrete)	m3	0.31	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	0.99	0.10	0.24	0.19	1.14	1.33							
W0241	Formwork (reinforced concrete H<4m)	m2	2.58	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	349.54	231.53	4.59	16.97	568.69	585.66							
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	23.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	85.84	427.66	43.42	299.90	257.02	556.92							
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00							
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50							
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	5.04	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	59.70	84.24	10.28	59.72	94.50	154.22							
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00							
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%						
	Total									1,650.70	2,493.97	627.40	1,527.77	3,244.30	4,772.07							
	Components (%)									34.6%	52.3%	13.1%	32.0%	68.0%	100.0%							
	Unit Rate	each								1,649.98	2,492.89	627.13	1,527.19	3,242.90	4,770.00							

## 502(2)c4 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.64	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	158.63	83.68	331.13	233.55	339.89	573.44	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.64	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	14.55	11.37	62.40	41.29	47.03	88.32	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	52.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	997.58	1,015.00	36.22	385.12	1,663.68	2,048.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.36	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	14.05	466.44	91.90	325.17	247.23	572.40	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.35	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	14.24	0.18	75.88	40.67	49.63	90.30	
W0237	Concrete Curing (reinforced concrete)	m3	0.35	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.12	0.11	0.27	0.21	1.29	1.50	
W0241	Formwork (reinforced concrete H<4m)	m2	2.81	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	380.70	252.17	5.00	18.49	619.38	637.87	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	26.07	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	94.03	468.45	47.56	328.51	281.53	610.04	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	5.81	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	68.82	97.11	11.85	68.85	108.94	177.79	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,773.57	2,686.12	685.27	1,651.50	3,493.46	5,144.96	
	Components (%)									34.5%	52.2%	13.3%	32.1%	67.9%	100.0%	
	Unit Rate	each								1,771.86	2,683.53	684.61	1,649.91	3,490.09	5,140.00	

## 502(2)c5 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.70	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	173.50	91.52	362.18	255.44	371.76	627.20	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.70	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	15.92	12.43	68.25	45.16	51.44	96.60	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	56.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,074.32	1,093.08	39.00	414.74	1,791.66	2,206.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.41	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	16.01	531.23	104.67	370.33	281.57	651.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.40	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	16.27	0.20	86.72	46.48	56.72	103.20	
W0237	Concrete Curing (reinforced concrete)	m3	0.40	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.28	0.13	0.31	0.24	1.48	1.72	
W0241	Formwork (reinforced concrete H<4m)	m2	3.04	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	411.86	272.81	5.41	20.00	670.08	690.08	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	28.34	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	102.22	509.24	51.70	357.12	306.04	663.16	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	6.57	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	77.82	109.81	13.40	77.86	123.18	201.04	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									1,919.04	2,912.07	754.69	1,797.02	3,788.78	5,585.80	
	Components (%)									34.4%	52.1%	13.5%	32.2%	67.8%	100.0%	
	Unit Rate	each								1,920.48	2,914.26	755.26	1,798.37	3,791.63	5,590.00	

## 502(2)c6 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.76	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	188.37	99.37	393.22	277.34	403.62	630.96	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.76	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	17.28	13.50	74.10	49.03	55.85	104.88	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	59.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,131.87	1,151.64	41.09	436.96	1,887.64	2,324.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.45	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	17.57	583.05	114.88	406.46	309.04	715.50	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.44	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	17.90	0.22	95.40	51.12	62.40	113.52	
W0237	Concrete Curing (reinforced concrete)	m3	0.44	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.41	0.14	0.34	0.26	1.63	1.89	
W0241	Formwork (reinforced concrete H<4m)	m2	3.27	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	443.02	293.45	5.82	21.51	720.78	742.29	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	30.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	110.37	549.85	55.82	385.59	330.45	716.04	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	7.33	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	86.83	122.52	14.95	86.86	137.44	224.30	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										2,044.46	3,105.35	818.67	1,924.80	4,043.68	5,968.48	
Components (%)										34.3%	52.0%	13.7%	32.2%	67.8%	100.0%	
Unit Rate										2,044.98	3,106.14	818.88	1,925.29	4,044.71	5,970.00	

502(2)e7 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ460				Unit: 1.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.88	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	218.11	115.06	455.31	321.13	467.35	788.48	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.88	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	20.01	15.63	85.80	56.78	64.66	121.44	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	66.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,266.16	1,288.27	45.97	488.80	2,111.60	2,600.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.53	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	20.69	686.71	135.30	478.72	363.98	842.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.52	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	21.16	0.26	112.74	60.42	73.74	134.16	
W0237	Concrete Curing (reinforced concrete)	m3	0.52	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.66	0.17	0.40	0.31	1.92	2.23	
W0241	Formwork (reinforced concrete H<4m)	m2	3.73	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	505.34	334.73	6.64	24.54	822.17	846.71	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	35.04	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	126.38	629.63	63.92	441.54	378.40	819.94	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	8.62	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	102.11	144.08	17.58	102.15	161.62	263.77	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,311.47	3,506.15	946.71	2,184.04	4,580.29	6,764.33	
	Components (%)									34.2%	51.8%	14.0%	32.3%	67.7%	100.0%	
	Unit Rate	each								2,309.99	3,503.91	946.11	2,182.64	4,577.35	6,760.00	

502(2)e12 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ610 x 1-φ610										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.59	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	146.24	77.14	305.26	215.30	313.34	528.64	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.59	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	13.42	10.48	57.52	38.07	43.35	81.42	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	49.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	940.03	956.44	34.13	362.90	1,567.70	1,930.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.33	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	12.88	427.57	84.24	298.07	226.63	524.70	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.32	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	13.02	0.16	69.38	37.18	45.38	82.56	
W0237	Concrete Curing (reinforced concrete)	m3	0.32	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.02	0.10	0.24	0.19	1.18	1.37	
W0241	Formwork (reinforced concrete H<4m)	m2	2.62	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	354.95	235.12	4.66	17.24	577.50	594.74	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	24.25	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	87.46	435.75	44.24	305.57	261.88	567.45	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	4.52	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	53.54	75.55	9.22	53.56	84.75	138.31	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									1,652.41	2,509.92	631.96	1,537.74	3,256.55	4,794.29	
	Components (%)									34.5%	52.4%	13.2%	32.1%	67.9%	100.0%	
	Unit Rate	each								1,650.93	2,507.68	631.39	1,536.36	3,253.64	4,790.00	

502(2)c13 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ750 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.66	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	163.58	86.29	341.48	240.84	350.52	591.36	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.66	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	15.01	11.72	64.35	42.58	48.50	91.08	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	52.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	997.58	1,015.00	36.22	385.12	1,663.68	2,048.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.38	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	14.83	492.36	97.01	343.23	260.97	604.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.37	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	15.05	0.19	80.22	42.99	52.47	95.46	
W0237	Concrete Curing (reinforced concrete)	m3	0.37	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.19	0.12	0.28	0.22	1.37	1.59	
W0241	Formwork (reinforced concrete H<4m)	m2	2.87	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	388.82	257.56	5.11	18.88	632.61	651.49	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	26.63	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	96.05	478.51	48.58	335.56	287.58	623.14	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	5.04	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	59.70	84.24	10.28	59.72	94.50	154.22	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,781.66	2,717.59	706.58	1,678.81	3,527.03	5,205.84	
	Components (%)									34.2%	52.2%	13.6%	32.2%	67.8%	100.0%	
	Unit Rate	each								1,783.09	2,719.76	707.15	1,680.16	3,529.84	5,210.00	

502(2)c14 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.72	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	178.46	94.14	372.53	262.74	382.38	645.12	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.72	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	16.37	12.79	70.20	46.45	52.91	99.36	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	56.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,074.32	1,093.08	39.00	414.74	1,791.66	2,206.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.42	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	16.40	544.18	107.22	379.36	288.44	667.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.41	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	16.68	0.21	88.89	47.64	58.14	105.78	
W0237	Concrete Curing (reinforced concrete)	m3	0.41	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.31	0.13	0.31	0.25	1.51	1.76	
W0241	Formwork (reinforced concrete H<4m)	m2	3.14	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	425.40	281.79	5.59	20.66	692.12	712.78	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	29.13	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	105.07	523.43	53.14	367.07	314.57	681.64	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	5.81	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	68.82	97.11	11.85	68.85	108.94	177.79	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,932.67	2,938.47	771.79	1,817.41	3,825.52	5,642.93	
	Components (%)									34.2%	52.1%	13.7%	32.2%	67.8%	100.0%	
	Unit Rate	each								1,931.67	2,936.94	771.39	1,816.47	3,823.53	5,640.00	

## 502(2)c15 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.79	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	195.81	103.29	408.74	288.28	419.56	707.84	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.79	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	17.97	14.03	77.02	50.97	58.05	109.02	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	59.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,131.87	1,151.64	41.09	436.96	1,887.64	2,324.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.47	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	18.35	608.97	119.99	424.53	322.77	747.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.46	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	18.72	0.23	99.73	53.45	65.23	118.68	
W0237	Concrete Curing (reinforced concrete)	m3	0.46	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.47	0.15	0.35	0.27	1.70	1.97	
W0241	Formwork (reinforced concrete H<4m)	m2	3.40	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	460.63	305.12	6.05	22.37	749.43	771.80	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	31.62	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	114.05	568.18	57.68	398.45	341.46	739.91	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	6.57	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	77.82	109.81	13.40	77.86	123.18	201.04	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,066.52	3,153.02	847.12	1,962.79	4,103.87	6,066.66	
	Components (%)									34.1%	52.0%	14.0%	32.4%	67.6%	100.0%	
	Unit Rate	each								2,067.66	3,154.76	847.58	1,963.87	4,106.13	6,070.00	

## 502(2)c16 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1220 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount						Total (PP)	Remarks
				Component (%)							Component (PP)							
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local				
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.85	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	210.68	111.14	439.79	310.18	451.42	761.60	Loss 2.0%		
W0025	Disposal of Demolished Debris	m3	0.85	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	19.33	15.10	82.87	54.84	62.46	117.30			
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	63.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,208.61	1,229.71	43.88	466.58	2,015.62	2,482.20			
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.52	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	20.30	673.75	132.75	469.69	357.11	826.80			
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.51	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	20.75	0.26	110.57	59.26	72.32	131.58			
W0237	Concrete Curing (reinforced concrete)	m3	0.51	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.63	0.17	0.39	0.31	1.88	2.19			
W0241	Formwork (reinforced concrete H<4m)	m2	3.67	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	497.21	329.35	6.53	24.14	808.95	833.09			
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	34.11	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	123.03	612.92	62.23	429.82	368.35	798.17			
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00			
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50			
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	7.33	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	86.83	122.52	14.95	86.86	137.44	224.30			
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00			
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00			
	Total									2,218.20	3,386.51	917.01	2,111.34	4,410.39	6,521.73			
	Components (%)									34.0%	51.9%	14.1%	32.4%	67.6%	100.0%			
	Unit Rate	each								2,217.62	3,385.61	916.77	2,110.78	4,409.22	6,520.00			



## 502(2)c17 Junction Box Converted to Curb Inlet Manhole for RCPC 1-φ1520 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.98	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	242.90	128.13	507.05	357.62	520.46	878.08	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.98	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	22.29	17.41	95.55	63.23	72.01	135.24	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	70.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,342.90	1,366.35	48.75	518.43	2,239.57	2,758.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.62	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	24.20	803.32	158.28	560.01	425.79	985.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.61	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	24.82	0.31	132.25	70.87	86.51	157.38	
W0237	Concrete Curing (reinforced concrete)	m3	0.61	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.96	0.20	0.47	0.37	2.25	2.62	
W0241	Formwork (reinforced concrete H<4m)	m2	4.18	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	566.30	375.12	7.44	27.50	921.36	948.86	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	38.98	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	140.59	700.43	71.11	491.19	420.94	912.13	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	8.62	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	102.11	144.08	17.58	102.15	161.62	263.77	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,497.90	3,826.94	1,061.54	2,401.02	4,985.36	7,386.38	
	Components (%)									33.8%	51.8%	14.4%	32.5%	67.5%	100.0%	
	Unit Rate	each								2,499.13	3,828.82	1,062.06	2,402.19	4,987.81	7,390.00	

## 502(2)c21 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ460 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.68	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	168.54	88.91	351.83	248.14	361.14	609.28	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.68	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	15.46	12.08	66.30	43.87	49.97	93.84	
W0751	Concrete Hollow Block (150x200x400mm), furnish & laying including mortar fill	each	54.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,035.95	1,054.04	37.61	399.93	1,727.67	2,127.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.39	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	15.22	505.31	99.56	352.27	267.83	620.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.38	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	15.46	0.19	82.39	44.15	53.89	98.04	
W0237	Concrete Curing (reinforced concrete)	m3	0.38	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.22	0.12	0.29	0.23	1.40	1.63	
W0241	Formwork (reinforced concrete H<4m)	m2	2.95	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	399.66	264.74	5.25	19.41	650.24	669.65	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	27.65	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	99.73	496.84	50.44	348.42	298.59	647.01	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	6.22	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	73.68	103.96	12.69	73.71	116.62	190.33	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									1,854.77	2,817.80	729.41	1,739.78	3,662.20	5,401.98	
	Components (%)									34.3%	52.2%	13.5%	32.2%	67.8%	100.0%	
	Unit Rate	each								1,854.09	2,816.77	729.14	1,739.14	3,660.86	5,400.00	

502(2)c22 Junction Box Converted to Curb Inlet Manhole for RCPC 2- $\phi$ 610 x 1- $\phi$ 450

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.81	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	200.76	105.91	419.09	295.58	430.18	725.76	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.81	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	18.42	14.39	78.97	52.26	59.52	111.78	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	62.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,189.43	1,210.19	43.18	459.18	1,983.62	2,442.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.48	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	18.74	621.92	122.54	433.56	329.64	763.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.47	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	19.12	0.24	101.90	54.61	66.65	121.26	
W0237	Concrete Curing (reinforced concrete)	m3	0.47	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.51	0.15	0.36	0.28	1.74	2.02	
W0241	Formwork (reinforced concrete H<4m)	m2	3.47	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	470.11	311.40	6.18	22.83	764.86	787.69	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	32.58	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	117.51	585.43	59.44	410.54	351.83	762.37	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	7.82	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	92.63	130.71	15.95	92.67	146.62	239.29	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,158.07	3,271.94	870.66	2,031.16	4,269.51	6,300.67	
	Components (%)									34.3%	51.9%	13.8%	32.2%	67.8%	100.0%	
	Unit Rate	each								2,157.84	3,271.59	870.57	2,030.95	4,269.05	6,300.00	

502(2)c23 Junction Box Converted to Curb Inlet Manhole for RCPC 2- $\phi$ 760 x 1- $\phi$ 460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.94	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	232.98	122.90	486.35	343.02	499.22	842.24	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	0.94	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	21.38	16.70	91.65	60.65	69.07	129.72	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	70.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,342.90	1,366.35	48.75	518.43	2,239.57	2,758.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.58	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	22.64	751.49	148.07	523.88	398.32	922.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.57	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	23.19	0.29	123.58	66.23	80.83	147.06	
W0237	Concrete Curing (reinforced concrete)	m3	0.57	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.83	0.19	0.44	0.34	2.11	2.45	
W0241	Formwork (reinforced concrete H<4m)	m2	3.98	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	539.21	357.17	7.09	26.18	877.28	903.46	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	37.51	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	135.29	674.01	68.43	472.66	405.07	877.73	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	9.42	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	111.58	157.45	19.22	111.63	176.62	288.25	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,460.84	3,738.15	1,016.62	2,332.68	4,882.93	7,215.61	
	Components (%)									34.1%	51.8%	14.1%	32.3%	67.7%	100.0%	
	Unit Rate	each								2,462.34	3,740.42	1,017.24	2,334.10	4,885.90	7,220.00	

## 502(2)c24 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ910 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.07	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	265.21	139.90	553.61	390.46	568.26	958.72	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.07	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	24.33	19.01	104.32	69.03	78.63	147.66	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	78.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,496.37	1,522.50	54.33	577.68	2,495.52	3,073.20	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.67	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	26.16	868.10	171.04	605.17	460.13	1,065.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.66	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	26.85	0.33	143.09	76.68	93.60	170.28	
W0237	Concrete Curing (reinforced concrete)	m3	0.66	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.11	0.22	0.50	0.39	2.44	2.83	
W0241	Formwork (reinforced concrete H<4m)	m2	4.50	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	609.65	403.83	8.01	29.61	991.89	1,021.50	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	42.44	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	153.07	762.60	77.42	534.79	458.31	993.10	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	11.02	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	130.54	184.19	22.48	130.59	206.62	337.21	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									2,764.14	4,192.29	1,157.87	2,624.07	5,490.23	8,114.39	
	Components (%)									34.1%	51.7%	14.3%	32.3%	67.7%	100.0%	
	Unit Rate	each								2,762.67	4,190.07	1,157.25	2,622.67	5,487.33	8,110.00	

## 502(2)c25 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1070 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.21	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	299.91	158.20	626.05	441.55	642.61	1,084.16	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.21	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	27.52	21.49	117.97	78.07	88.91	166.98	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	87.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,669.03	1,698.17	60.59	644.33	2,783.47	3,427.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.79	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	30.84	1,023.58	201.68	713.56	542.54	1,256.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.77	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	31.33	0.39	166.94	89.47	109.19	198.66	
W0237	Concrete Curing (reinforced concrete)	m3	0.77	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.46	0.25	0.59	0.46	2.84	3.30	
W0241	Formwork (reinforced concrete H<4m)	m2	5.05	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	684.17	453.19	8.99	33.22	1,113.13	1,146.35	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	47.67	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	171.94	856.58	86.96	600.69	514.79	1,115.48	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	12.89	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	152.69	215.45	26.30	152.75	241.68	394.43	0.0%
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									3,099.72	4,718.92	1,319.12	2,963.76	6,174.00	9,137.76	
	Components (%)									33.9%	51.6%	14.4%	32.4%	67.6%	100.0%	
	Unit Rate	each								3,100.48	4,720.08	1,319.45	2,964.48	6,175.52	9,140.00	

## 502(2)c26 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1220 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.35	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	334.61	176.51	698.49	492.64	716.96	1,209.60	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.35	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	30.70	23.98	131.62	87.10	99.20	186.30	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laving including mortar fill	each	95.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,822.51	1,854.33	66.17	703.58	3,039.42	3,743.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.88	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	34.35	1,140.19	224.65	794.86	604.34	1,399.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.86	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	34.99	0.44	186.45	99.92	121.96	221.88	
W0237	Concrete Curing (reinforced concrete)	m3	0.86	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.75	0.28	0.66	0.51	3.18	3.69	
W0241	Formwork (reinforced concrete 1K4m)	m2	5.57	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	754.62	499.86	9.92	36.65	1,227.74	1,264.39	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	52.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	189.72	945.16	95.96	662.81	568.03	1,230.84	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	14.49	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	171.64	242.19	29.56	171.71	271.68	443.39	
W0712	Iron Stop for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,405.73	5,174.54	1,466.52	3,259.43	6,787.36	10,046.79	
	Components (%)									33.9%	51.5%	14.6%	32.4%	67.6%	100.0%	
	Unit Rate	each								3,389.86	5,150.44	1,459.69	3,244.25	6,755.75	10,000.00	

## 502(2)c27 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1520 x 1-φ460

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.61	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	399.05	210.50	833.01	587.52	855.04	1,442.56	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.61	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	36.61	28.60	156.97	103.87	118.31	222.18	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	111.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,129.45	2,166.64	77.31	822.08	3,551.32	4,373.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.07	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	41.77	1,386.37	273.16	966.47	734.83	1,701.30	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.05	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	42.72	0.53	227.65	122.00	148.90	270.90	
W0237	Concrete Curing (reinforced concrete)	m3	1.05	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.36	0.34	0.80	0.63	3.87	4.50	
W0241	Formwork (reinforced concrete 1K4m)	m2	6.60	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	894.16	582.29	11.75	43.42	1,454.78	1,498.20	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	62.47	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	225.32	1,122.52	113.96	787.19	674.61	1,461.80	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	17.69	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	209.55	295.68	36.09	209.63	331.68	541.31	
W0712	Iron Stop for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,011.83	6,095.07	1,753.75	3,852.46	8,008.19	11,860.65	
	Components (%)									33.8%	51.4%	14.8%	32.5%	67.5%	100.0%	
	Unit Rate	each								4,025.14	6,115.30	1,759.56	3,865.24	8,034.76	11,900.00	

502(2)c32 Junction Box Converted to Curb Inlet Manhole for RCPC 2- $\phi$ 610 x 1- $\phi$ 610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (lightly Reinforced Structures)	m3	0.91	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	225.55	118.98	470.83	332.07	483.29	815.36	
W0025	Disposal of Demolished Debris	m3	0.91	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	20.69	16.16	88.72	58.71	66.87	125.58	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	66.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,266.16	1,288.27	45.97	488.80	2,111.60	2,600.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.56	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	21.86	725.58	142.96	505.82	384.58	890.40	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.55	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	22.38	0.28	119.24	63.90	78.00	141.90	
W0237	Concrete Curing (reinforced concrete)	m3	0.55	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	1.76	0.18	0.42	0.33	2.03	2.36	
W0241	Formwork (reinforced concrete H<4m)	m2	3.89	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	527.01	349.09	6.93	25.59	857.44	883.03	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	36.26	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	130.78	651.55	66.15	456.91	391.57	848.48	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	7.82	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	92.63	130.71	15.95	92.67	146.62	239.29	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,338.67	3,572.40	980.22	2,234.47	4,656.83	6,891.30	
	Components (%)									33.9%	51.8%	14.2%	32.4%	67.6%	100.0%	
	Unit Rate	each								2,338.23	3,571.73	980.04	2,234.04	4,655.96	6,890.00	

502(2)c33 Junction Box Converted to Curb Inlet Manhole for RCPC 2- $\phi$ 760 x 1- $\phi$ 610

Unit: 1.00 each

Unit Rate																
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.05	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	260.25	137.28	543.27	383.16	557.64	940.80	
W0025	Disposal of Demolished Debris	m3	1.05	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	23.88	18.65	102.37	67.74	77.16	144.90	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	74.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,419.64	1,444.42	51.54	548.05	2,367.55	2,915.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.67	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	26.16	868.10	171.04	605.17	460.13	1,065.30	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.66	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	26.85	0.33	143.09	76.68	93.60	170.28	
W0237	Concrete Curing (reinforced concrete)	m3	0.66	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.11	0.22	0.50	0.39	2.44	2.83	
W0241	Formwork (reinforced concrete H<4m)	m2	4.48	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	606.94	402.04	7.98	29.47	987.49	1,016.96	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	41.69	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	150.37	749.13	76.06	525.34	450.21	975.55	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	9.42	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	111.58	157.45	19.22	111.63	176.62	288.25	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,657.62	4,069.23	1,138.12	2,557.31	5,307.66	7,864.97	
	Components (%)									33.8%	51.7%	14.5%	32.5%	67.5%	100.0%	
	Unit Rate	each								2,655.94	4,066.66	1,137.40	2,555.69	5,304.31	7,860.00	

## 502(2)c34 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ910 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.20	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	297.43	156.90	620.88	437.90	637.30	1,075.20	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.20	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	27.29	21.32	116.99	77.42	88.18	165.60	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	82.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,573.11	1,600.58	57.11	607.30	2,623.50	3,230.80	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.79	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	30.84	1,023.58	201.68	713.56	542.54	1,256.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.77	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	31.33	0.39	166.94	89.47	109.19	198.66	
W0237	Concrete Curing (reinforced concrete)	m3	0.77	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.46	0.25	0.59	0.46	2.84	3.30	
W0241	Formwork (reinforced concrete 11<4m)	m2	5.06	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	685.52	454.09	9.01	33.29	1,115.33	1,148.62	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	47.12	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	169.95	846.70	85.96	593.76	508.85	1,102.61	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	11.02	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	130.54	184.19	22.48	130.59	206.62	337.21	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,978.31	4,579.60	1,304.69	2,893.41	5,969.19	8,862.60	
	Components (%)									33.6%	51.7%	14.7%	32.6%	67.4%	100.0%	
	Unit Rate	each								2,977.44	4,578.25	1,304.31	2,892.56	5,967.44	8,860.00	

## 502(2)c35 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1070 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.36	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	337.08	177.82	703.66	496.29	722.27	1,218.56	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.36	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	30.93	24.16	132.59	87.75	99.93	187.68	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	91.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,745.77	1,776.25	63.38	673.96	2,911.44	3,585.40	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.91	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	35.52	1,179.06	232.31	821.95	624.95	1,446.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.89	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	36.21	0.45	192.96	103.41	126.21	229.62	
W0237	Concrete Curing (reinforced concrete)	m3	0.89	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.85	0.29	0.68	0.53	3.29	3.82	
W0241	Formwork (reinforced concrete 11<4m)	m2	5.70	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	772.23	511.52	10.15	37.50	1,256.40	1,293.90	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	52.87	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	190.69	950.02	96.45	666.22	570.94	1,237.16	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	12.89	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	152.69	215.45	26.30	152.75	241.68	394.43	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,333.82	5,126.62	1,481.53	3,250.00	6,691.97	9,941.97	
	Components (%)									33.5%	51.6%	14.9%	32.7%	67.3%	100.0%	
	Unit Rate	each								3,333.16	5,125.61	1,481.24	3,249.36	6,690.64	9,940.00	

## 502(2)c36 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1220 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.50	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	371.78	196.12	776.10	547.37	796.63	1,344.00	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.50	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	34.11	26.65	145.24	96.78	110.22	207.00	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	99.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	1,899.24	1,932.41	68.95	733.20	3,167.40	3,900.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.02	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	39.82	1,321.59	260.39	921.31	700.49	1,621.80	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.00	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	40.69	0.51	216.81	116.19	141.81	258.00	
W0237	Concrete Curing (reinforced concrete)	m3	1.00	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.20	0.33	0.76	0.60	3.69	4.29	
W0241	Formwork (reinforced concrete H<4m)	m2	6.28	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	850.81	563.57	11.18	41.32	1,384.24	1,425.56	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	58.30	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	210.28	1,047.59	106.36	734.64	629.58	1,364.22	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	14.49	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	171.64	242.19	29.56	171.71	271.68	443.39	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,651.41	5,622.55	1,639.40	3,572.77	7,340.59	10,913.36	
	Components (%)									33.5%	51.5%	15.0%	32.7%	67.3%	100.0%	
	Unit Rate	each								3,646.94	5,615.66	1,637.40	3,568.40	7,331.60	10,900.00	

## 502(2)c37 Junction Box Converted to Curb Inlet Manhole for RCPC 2-φ1520 x 1-φ610

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	1.79	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	443.66	234.04	926.14	653.20	950.64	1,603.84	Loss 2.0%
W0025	Disposal of Demolished Debris	m3	1.79	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	40.71	31.80	174.52	115.49	131.53	247.02	
W0751	Concrete Hollow Block (150x200x400mm), furnish & Laying including mortar fill	each	115.00	48.7%	49.5%	1.8%	18.8%	81.2%	39.40	2,206.19	2,244.71	80.09	851.70	3,679.30	4,531.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.24	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	48.41	1,606.64	316.56	1,120.02	851.58	1,971.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.22	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	49.64	0.62	264.51	141.75	173.01	314.76	
W0237	Concrete Curing (reinforced concrete)	m3	1.22	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.90	0.40	0.93	0.73	4.50	5.23	
W0241	Formwork (reinforced concrete H<4m)	m2	7.46	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,010.67	669.47	13.28	49.08	1,644.34	1,693.42	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	69.15	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	249.41	1,242.55	126.15	871.36	746.75	1,618.11	
W0701	Precast Concrete Cover (580x480x70), furnish	each	1.00	1.3%	90.8%	7.9%	62.9%	37.1%	116.00	1.51	105.37	9.12	72.99	43.01	116.00	
W0702	Precast Concrete Cover (580x480x70), installation	each	1.00	89.3%	1.1%	9.6%	5.4%	94.6%	10.50	9.38	0.11	1.01	0.56	9.94	10.50	
W0716	Steel Grate for Manhole Inlet, furnish & installation	kg	17.69	38.7%	54.6%	6.7%	38.7%	61.3%	30.60	209.55	295.68	36.09	209.63	331.68	541.31	
W0712	Iron Step for Special Junction Box Manholes, furnish & installation	each	4.00	8.7%	85.4%	5.9%	62.4%	37.6%	54.50	18.96	186.12	12.92	136.10	81.90	218.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,291.98	6,617.50	1,961.32	4,222.62	8,648.17	12,870.79	
	Components (%)									33.3%	51.4%	15.2%	32.8%	67.2%	100.0%	
	Unit Rate	each								4,301.72	6,632.52	1,965.77	4,232.20	8,667.80	12,900.00	

## 502(3)a1 Catch Basin for RCPC 1-φ460mm

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.21	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	20.67	10.69	50.74	31.87	50.24	82.11	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.42	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	94.47	3,135.53	617.80	2,185.85	1,661.95	3,847.80	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.37	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	96.43	1.20	513.83	275.37	336.09	611.46	
W0237	Concrete Curing (reinforced concrete)	m3	2.37	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	7.59	0.77	1.81	1.42	8.75	10.17	
W0241	Formwork (reinforced concrete H<4m)	m2	18.81	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,548.35	1,688.03	33.49	123.75	4,146.12	4,269.87	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	122.20	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	440.75	2,195.80	222.93	1,539.84	1,319.64	2,859.48	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									3,208.27	7,032.02	1,440.60	4,158.10	7,522.79	11,680.89	
	Components (%)									27.5%	60.2%	12.3%	35.6%	64.4%	100.0%	
	Unit Rate	each								3,213.52	7,043.53	1,442.96	4,164.90	7,535.10	11,700.00	

## 502(3)a2 Catch Basin for RCPC 1-φ510mm

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.27	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	26.58	13.75	65.24	40.97	64.60	105.57	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.98	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	116.33	3,861.11	760.76	2,691.67	2,046.53	4,738.20	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.92	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	118.80	1.48	633.08	339.27	414.09	753.36	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.92	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	9.35	0.95	2.23	1.75	10.78	12.53	
W0241	Formwork (reinforced concrete H<4m)	m2	23.15	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,136.33	2,077.50	41.22	152.30	5,102.75	5,255.05	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	148.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	533.81	2,659.40	270.00	1,864.95	1,598.25	3,463.20	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									3,941.21	8,614.19	1,772.52	5,090.92	9,236.99	14,327.91	
	Components (%)									27.5%	60.1%	12.4%	35.5%	64.5%	100.0%	
	Unit Rate	each								3,933.53	8,597.41	1,769.06	5,081.00	9,219.00	14,300.00	

## 502(3)a3 Catch Basin for RCPC 1-φ760mm

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.32	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	31.50	16.29	77.32	48.56	76.56	125.12	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	3.55	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	138.59	4,599.64	906.27	3,206.52	2,437.98	5,644.50	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	3.48	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	141.59	1.76	754.49	404.34	493.50	897.84	
W0237	Concrete Curing (reinforced concrete)	m3	3.48	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	11.14	1.14	2.65	2.08	12.85	14.93	
W0241	Formwork (reinforced concrete H<4m)	m2	27.47	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,721.60	2,465.18	48.91	180.73	6,054.96	6,235.69	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	174.90	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	630.83	3,142.76	319.07	2,203.92	1,888.74	4,092.66	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,675.25	10,226.78	2,108.72	6,046.14	10,964.60	17,010.74	
	Components (%)									27.5%	60.1%	12.4%	35.5%	64.5%	100.0%	
	Unit Rate	each								4,672.30	10,220.32	2,107.38	6,042.32	10,957.68	17,000.00	



## 502(3)a4 Catch Basin for RCPC 1-φ910mm

502(3)a4 Catch Basin for RCPC 1-φ910mm				Unit: 1.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.37	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	36.43	18.84	89.41	56.15	88.52	144.67	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.16	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	162.40	5,390.01	1,062.00	3,757.50	2,856.90	6,614.40	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.08	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	166.00	2.06	884.58	474.05	578.59	1,052.64	
W0237	Concrete Curing (reinforced concrete)	m3	4.08	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	13.06	1.33	3.11	2.44	15.06	17.50	
W0241	Formwork (reinforced concrete H<4m)	m2	32.15	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,355.64	2,885.17	57.24	211.52	7,086.53	7,298.05	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	204.10	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	736.15	3,667.45	372.34	2,571.87	2,204.07	4,775.94	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,469.67	11,964.86	2,468.67	7,073.52	12,829.68	19,903.20	
	Components (%)									27.5%	60.1%	12.4%	35.5%	64.5%	100.0%	
	Unit Rate	each								5,468.79	11,962.94	2,468.27	7,072.38	12,827.62	19,900.00	

## 502(3)a5 Catch Basin for RCPC 1-φ1070mm

S02(3)a5 Catch Basin for RCPC 1-φ1070mm				Unit: 1.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						Remarks
				Component (%)						Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.43	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	42.33	21.89	103.90	65.25	102.88	168.13	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain-concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.87	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	190.12	6,309.93	1,243.25	4,398.80	3,344.59	7,743.30	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.77	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	194.07	2.41	1,034.17	554.22	676.44	1,230.66	
W0237	Concrete Curing (reinforced concrete)	m3	4.77	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	15.27	1.56	3.63	2.86	17.60	20.46	
W0241	Formwork (reinforced concrete H<4m)	m2	37.44	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	5,072.32	3,359.90	66.66	246.32	8,252.56	8,498.88	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	236.20	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	851.92	4,244.25	430.90	2,976.36	2,550.72	5,527.08	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									6,366.04	13,939.95	2,882.52	8,243.81	14,944.70	23,188.51	
	Components (%)									27.5%	60.1%	12.4%	35.6%	64.4%	100.0%	
	Unit Rate	each								6,369.19	13,946.86	2,883.95	8,247.89	14,952.11	23,200.00	

## 502(3)a6 Catch Basin for RCPC 1-φ1220mm

502(3)a6 Catch Basin for RCPC 1-φ1220mm				Unit: 1.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						Remarks
				Component (%)						Component (PP)					Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.50	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	49.22	25.46	120.82	75.87	119.63	195.50	
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	5.58	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	217.83	7,229.86	1,424.50	5,040.11	3,832.09	8,872.20	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	5.47	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	222.55	2.77	1,185.94	635.55	775.71	1,411.26	
W0237	Concrete Curing (reinforced concrete)	m3	5.47	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	17.51	1.79	4.17	3.28	20.19	23.47	
W0241	Formwork (reinforced concrete H<4m)	m2	42.87	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	5,807.97	3,847.19	76.33	282.04	9,449.45	9,731.49	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	269.90	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	973.47	4,849.81	492.38	3,401.02	2,914.64	6,315.66	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									7,288.57	15,956.87	3,304.14	9,437.86	17,111.72	26,549.58	
	Components (%)									27.5%	60.1%	12.4%	35.5%	64.5%	100.0%	
	Unit Rate	each								7,274.96	15,927.07	3,297.97	9,420.24	17,079.76	26,500.00	

## 502(3)a7 Catch Basin for RCPC 1-φ1520mm

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.64	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	63.01	32.58	154.65	97.12	153.12	250.24	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	7.15	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	279.12	9,264.07	1,825.30	6,458.20	4,910.30	11,368.50	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	7.01	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	285.21	3.55	1,519.82	814.48	994.10	1,808.58	
W0237	Concrete Curing (reinforced concrete)	m3	7.01	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	22.44	2.29	5.34	4.20	25.87	30.07	
W0241	Formwork (reinforced concrete H<4m)	m2	54.79	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	7,422.88	4,916.90	97.55	360.46	12,076.87	12,437.33	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	343.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,240.02	6,177.71	627.20	4,332.23	3,712.69	8,044.92	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									9,312.68	20,397.10	4,229.86	12,066.69	21,872.95	33,939.64	
	Components (%)									27.4%	60.1%	12.5%	35.6%	64.4%	100.0%	
	Unit Rate	each								9,301.80	20,373.28	4,224.92	12,052.60	21,847.40	33,900.00	

## 502(3)b1 Catch Basin for RCPC 2-φ460mm

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.32	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	31.50	16.29	77.32	48.56	76.56	125.12	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.49	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	136.24	4,521.90	890.95	3,152.33	2,396.77	5,549.10	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	3.42	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	139.15	1.73	741.48	397.36	485.00	882.36	
W0237	Concrete Curing (reinforced concrete)	m3	3.42	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	10.95	1.12	2.61	2.05	12.62	14.67	
W0241	Formwork (reinforced concrete H<4m)	m2	25.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,386.97	2,243.52	44.51	164.48	5,510.52	5,675.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	167.10	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	602.70	3,002.60	304.84	2,105.63	1,804.51	3,910.14	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										4,307.51	9,787.17	2,061.72	5,870.40	10,285.99	16,156.39	
Components (%)										26.7%	60.6%	12.8%	36.3%	63.7%	100.0%	
Unit Rate		each								4,319.13	9,813.59	2,067.23	5,886.25	10,313.75	16,200.00	

## 502(3)b2 Catch Basin for RCPC 2-φ610mm

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.43	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	42.33	21.89	103.90	65.25	102.88	168.13	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.52	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	176.45	5,856.45	1,153.90	4,082.67	3,104.13	7,186.80	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	4.43	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	180.24	2.24	960.46	514.71	628.23	1,142.94	
W0237	Concrete Curing (reinforced concrete)	m3	4.43	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	14.18	1.45	3.37	2.65	16.35	19.00	
W0241	Formwork (reinforced concrete H<4m)	m2	31.96	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	4,329.90	2,868.12	56.90	210.26	7,044.66	7,254.92	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	214.50	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	773.66	3,854.33	391.31	2,702.92	2,316.38	5,019.30	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,516.76	12,604.47	2,669.85	7,578.47	13,212.62	20,791.09	
	Components (%)									26.5%	60.6%	12.8%	36.5%	63.5%	100.0%	
	Unit Rate	each								5,519.13	12,609.88	2,671.00	7,581.72	13,218.28	20,800.00	

502(3)b3 Catch Basin for RCPC 2-φ760mm

502(3)b3 Catch Basin for RCPC 2-φ760mm										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.55	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	54.15	28.00	132.90	83.46	131.59	215.05	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	5.61	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	219.00	7,268.73	1,432.16	5,067.21	3,852.69	8,919.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	5.50	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	223.78	2.78	1,192.44	639.04	779.96	1,419.00	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	5.50	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	17.61	1.80	4.19	3.29	20.31	23.60	
W0241	Formwork (reinforced concrete H<4m)	m2	39.20	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	5,310.77	3,517.84	69.79	257.90	8,640.50	8,898.40	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	265.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	957.96	4,772.54	484.54	3,346.83	2,868.21	6,215.04	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									6,783.27	15,591.70	3,316.03	9,397.72	16,293.27	25,690.99	
	Components (%)									26.4%	60.7%	12.9%	36.6%	63.4%	100.0%	
	Unit Rate	each								6,785.65	15,597.16	3,317.19	9,401.02	16,298.98	25,700.00	

502(3)b4 Catch Basin for RCPC 2-φ910mm

502(3)b4 Catch Basin for RCPC 2-φ910mm				Unit: 1.00 each													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount						Total (PP)	Remarks
				Component (%)						Component (PP)							
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local			
W0161	Gravel Foundation Fill	m3	0.67	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	65.96	34.11	161.90	101.67	160.30	261.97	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	6.80	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	265.46	8,810.59	1,735.95	6,142.07	4,669.93	10,812.00		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	6.67	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	271.38	3.37	1,446.11	774.98	945.88	1,720.86	Loss 2.0%	
W0237	Concrete Curing (reinforced concrete)	m3	6.67	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	21.35	2.18	5.08	3.99	24.62	28.61		
W0241	Formwork (reinforced concrete H<4m)	m2	47.11	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	6,382.40	4,227.69	83.87	309.94	10,384.03	10,693.97		
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	316.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,139.75	5,678.17	576.48	3,981.92	3,412.48	7,394.40	0.0%	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00		
Total										8,146.30	18,756.11	4,009.40	11,314.57	19,597.24	30,911.81		
Components (%)										26.4%	60.7%	13.0%	36.6%	63.4%	100.0%		
Unit Rate			each							8,143.19	18,748.95	4,007.87	11,310.24	19,589.76	30,900.00		

502(3)b5 Catch Basin for RCPC 2-φ1070mm

502(3)b5 Catch Basin for RCPC 2-φ1070mm										Unit: 1.00 each						Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.81	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	79.74	41.24	195.73	122.91	193.80	316.71	
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	8.19	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	319.72	10,611.57	2,090.80	7,397.58	5,624.52	13,022.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	8.03	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	326.71	4.06	1,740.97	932.99	1,138.75	2,071.74	
W0237	Concrete Curing (reinforced concrete)	m3	8.03	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	25.71	2.62	6.12	4.81	29.64	34.45	
W0241	Formwork (reinforced concrete H<4m)	m2	56.20	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	7,613.90	5,043.44	100.06	369.74	12,387.66	12,757.40	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	378.30	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,364.45	5,797.63	690.14	4,766.97	4,085.25	8,852.22	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										9,730.24	22,500.57	4,823.81	13,595.00	23,459.62	37,054.62	
Components (%)										26.3%	60.7%	13.0%	36.7%	63.3%	100.0%	
Unit Rate				each						9,742.16	22,528.12	4,829.72	13,611.65	23,488.35	37,100.00	

502(3)b6 Catch Basin for RCPC 2-φ1220mm				Unit: 1.00 each												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.96	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	94.51	48.87	231.97	145.67	229.69	375.36	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	9.60	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	374.77	12,438.48	2,450.76	8,671.15	6,592.85	15,264.00	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	9.41	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	382.86	4.76	2,040.16	1,093.33	1,334.45	2,427.78	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	9.41	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	30.13	3.07	7.17	5.63	34.74	40.37	
W0241	Formwork (reinforced concrete H<4m)	m2	65.47	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	8,869.79	5,875.34	116.56	430.73	14,430.96	14,861.69	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	444.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,601.42	7,978.19	809.99	5,594.85	4,794.75	10,389.60	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									11,353.47	26,348.71	5,666.62	15,941.38	27,417.42	43,358.80	
	Components (%)									26.2%	60.8%	13.0%	36.8%	63.2%	100.0%	
	Unit Rate	each								11,364.26	26,373.75	5,661.99	15,956.52	27,443.48	43,400.00	

502(3)b7 Catch Basin for RCPC 2-φ1520mm										Unit: 1.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	1.29	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	127.00	65.68	311.71	195.75	308.64	504.39	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	12.75	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	497.74	16,519.85	3,254.91	11,516.38	8,756.12	20,272.50	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	12.50	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	508.58	6.32	2,710.10	1,452.36	1,772.64	3,225.00	
W0237	Concrete Curing (reinforced concrete)	m3	12.50	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	40.02	4.08	9.53	7.48	46.15	53.63	
W0241	Formwork (reinforced concrete H<4m)	m2	85.98	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	11,648.46	7,715.92	153.08	565.66	18,951.80	19,517.46	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	583.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	2,102.76	10,475.87	1,063.57	7,346.40	6,295.80	13,642.20	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									14,924.56	34,787.72	7,502.90	21,084.02	36,131.16	57,215.18	
	Components (%)									26.1%	60.8%	13.1%	36.9%	63.1%	100.0%	
	Unit Rate	each								14,920.60	34,778.49	7,500.91	21,078.43	36,121.57	57,200.00	

502(4)a1 U-shaped Concrete Ditch W=0.50m x H=0.50m										Unit: 10.00 m						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	1.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	98.45	50.91	241.64	151.74	239.26	391.00	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.75	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	107.35	3,563.10	702.04	2,483.92	1,888.58	4,372.50	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.70	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	109.85	1.37	585.38	313.71	382.89	696.60	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	2.70	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	8.64	0.88	2.06	1.62	9.96	11.58	
W0241	Formwork (reinforced concrete H<4m)	m2	23.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,116.01	2,064.04	40.95	151.32	5,069.68	5,221.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	123.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	446.52	2,224.55	225.85	1,560.01	1,336.91	2,896.92	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									3,886.83	7,904.85	1,797.92	4,662.32	8,927.28	13,589.60	
	Components (%)									28.6%	58.2%	13.2%	34.3%	65.7%	100.0%	
	Unit Rate	m								388.98	791.09	179.93	466.59	893.41	1,360.00	

## 502(4)a2 U-shaped Concrete Ditch W=0.75m x H=0.50m

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	1.25	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	123.06	63.64	302.05	189.68	299.07	488.75	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.14	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	122.58	4,068.42	801.60	2,836.19	2,156.41	4,992.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	3.08	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	125.31	1.56	667.77	357.86	436.78	794.64	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	3.08	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	9.86	1.01	2.35	1.84	11.37	13.21	
W0241	Formwork (reinforced concrete H<4m)	m2	23.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,116.01	2,064.04	40.95	151.32	5,069.68	5,221.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	140.00	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	504.95	2,515.65	255.40	1,764.14	1,511.86	3,276.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									4,001.78	8,714.31	2,070.12	5,301.03	9,485.17	14,786.20	
	Components (%)									27.1%	58.9%	14.0%	35.9%	64.1%	100.0%	
	Unit Rate	m								400.55	872.24	207.20	530.60	949.40	1,480.00	

## 502(4)a3 U-shaped Concrete Ditch W=0.30m x H=0.30m

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount -					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.80	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	78.76	40.73	193.31	121.40	191.40	312.80	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.84	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	71.83	2,384.04	469.73	1,661.97	1,263.63	2,925.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.80	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	73.24	0.91	390.25	209.14	255.26	464.40	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.80	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.76	0.59	1.37	1.08	6.64	7.72	
W0241	Formwork (reinforced concrete H<4m)	m2	15.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,032.18	1,346.11	26.71	98.69	3,306.31	3,405.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	97.30	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	350.94	1,748.37	177.51	1,226.08	1,050.74	2,276.82	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									2,612.71	5,520.76	1,258.88	3,318.35	6,073.99	9,392.34	
	Components (%)									27.8%	58.8%	13.4%	35.3%	64.7%	100.0%	
	Unit Rate	m								261.21	551.94	125.86	331.75	607.25	939.00	

## 502(4)b1 U-shaped Concrete Ditch with Grating Cover, W=0.30m x H=0.30m

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0161	Gravel Foundation Fill	m3	0.80	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	78.76	40.73	193.31	121.40	191.40	312.80	Loss 2.0%
W0201	Lean Concrete (17MPa, max agg.38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.94	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	75.73	2,513.61	495.26	1,752.30	1,332.30	3,084.60	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.90	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	77.30	0.96	411.93	220.76	269.44	490.20	Loss 2.0%
W0237	Concrete Curing (reinforced concrete)	m3	1.90	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.08	0.62	1.45	1.14	7.01	8.15	
W0241	Formwork (reinforced concrete H<4m)	m2	17.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,303.14	1,525.59	30.27	111.84	3,747.16	3,859.00	Loss 2.0%
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	100.20	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	361.40	1,800.48	182.80	1,262.62	1,082.06	2,344.68	
W0721	Grating Cover for U-Ditch (W=300mm), furnish & installation	m2	4.20	9.1%	89.9%	1.0%	63.1%	36.9%	1,140.00	436.52	4,304.54	46.94	3,019.04	1,768.96	4,788.00	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									3,338.94	10,186.53	1,361.95	6,489.09	8,398.34	14,887.43	
	Components (%)									22.4%	68.4%	9.1%	43.6%	56.4%	100.0%	
	Unit Rate	m								334.18	1,019.51	136.31	649.46	840.54	1,490.00	

## 502(4)b2 U-shaped Concrete Ditch with Grating Cover, W=0.50m x H=0.50m

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
W0161	Gravel Foundation Fill	m3	1.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	98.45	50.91	241.64	151.74	239.26	391.00	Loss 2.0%	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0231	Concrete Pouring by Pump Vehicle (plain concrete)	m3	0.00	19.1%	0.2%	80.7%	43.3%	56.7%	214.00	0.00	0.00	0.00	0.00	0.00	0.00		
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00		
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.68	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	104.62	3,472.41	684.17	2,420.70	1,840.50	4,261.20		
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.63	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	107.01	1.33	570.20	305.58	372.96	678.54		
W0237	Concrete Curing (reinforced concrete)	m3	2.63	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	8.42	0.86	2.00	1.57	9.71	11.28		
W0241	Formwork (reinforced concrete H<4m)	m2	23.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	3,116.01	2,064.04	40.95	151.32	5,069.68	5,221.00	Loss 2.0%	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	123.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	446.52	2,224.55	225.85	1,560.01	1,336.91	2,896.92		
W0721	Grating Cover for U-Ditch (W=300mm), furnish & installation	m2	6.20	9.1%	89.9%	1.0%	63.1%	36.9%	1,140.00	644.39	6,354.32	69.29	4,456.67	2,611.33	7,068.00		
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%	
	Total									4,525.42	14,168.41	1,834.11	9,047.59	11,480.35	20,527.94		
	Components (%)									22.0%	69.0%	8.9%	44.1%	55.9%	100.0%		
	Unit Rate	m								451.93	1,414.91	183.16	903.53	1,146.47	2,050.00		

## 502(6)a V-shaped Lined Ditch H=500mm, 1:1.50

Unit: 10.00 m

Unit: 10.00																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	3.88	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	519.92	0.00	0.00	0.00	519.92	519.92	
W0115	Disposal of Surplus Soil (manpower loading)	m3	3.88	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	186.12	43.29	174.11	122.59	280.93	403.52	
W0741	Grouted Riprap Class A	m3	3.88	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	451.39	1,816.18	588.10	1,367.31	1,488.37	2,855.68	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										1,157.44	1,859.47	762.21	1,489.90	2,289.22	3,779.12	
Components (%)										30.6%	49.2%	20.2%	39.4%	60.6%	100.0%	
Unit Rate										115.77	185.99	76.24	149.02	228.98	378.00	

## 502(6)b V-shaped Lined Ditch H=500mm, 1:1.00

Unit: 10.00 m

Unit Rate										Amount					Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign		
W0109	Excavation, Manpower	m3	3.63	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	486.42	0.00	0.00	0.00	486.42	0.0%
W0115	Disposal of Surplus Soil (manpower loading)	m3	3.63	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	174.13	40.50	162.89	114.69	262.83	
W0741	Grouted Riprap Class A	m3	3.63	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	422.31	1,699.16	550.21	1,279.21	1,392.47	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	
Total										1,082.86	1,739.66	713.10	1,393.90	2,141.72	3,535.62
Components (%)										30.6%	49.2%	20.2%	39.4%	60.6%	100.0%
Unit Rate										108.42	174.18	71.40	139.56	214.44	354.00

## 502(7)a Trapezoidal Lined Ditch B=450mm, H=500mm, 1:1.00

Unit: 10.00 m

Unit Rate										Amount					Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)	
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign		
W0109	Excavation, Manpower	m3	2.68	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	359.12	0.00	0.00	0.00	359.12	0.0%
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.68	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	128.56	29.90	120.26	84.67	194.05	
W0741	Grouted Riprap Class A	m3	2.68	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	311.79	1,254.48	406.21	944.43	1,028.05	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	
	Total									799.47	1,284.38	526.48	1,029.11	2,610.32	
	Components (%)									30.6%	49.2%	20.2%	39.4%	60.6%	100.0%
	Unit Rate									79.94	128.42	52.64	102.90	158.10	261.00

502(7)b Trapezoidal Lined Ditch B=1000mm, H=500mm, 1:1.00

Unit: 10.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	3.78	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	506.52	0.00	0.00	0.00	506.52	506.52	
W0115	Disposal of Surplus Soil (manpower loading)	m3	3.78	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	181.33	42.17	169.62	119.43	273.69	393.12	
W0741	Grouted Riprap Class A	m3	3.78	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	439.76	1,769.37	572.94	1,332.07	1,450.01	2,782.08	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,127.61	1,811.54	742.57	1,451.50	2,230.22	3,681.72	
	Components (%)									30.6%	49.2%	20.2%	39.4%	60.6%	100.0%	
	Unit Rate	m								112.71	181.07	74.22	145.08	222.92	368.00	

503(3)a Cleaning Culvert in Place,  $\phi$ 910mm or less

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.49	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	282.24	0.00	0.00	0.00	282.24	282.24	
L020	Unskilled Labor	md	3.92	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,254.40	0.00	0.00	0.00	1,254.40	1,254.40	
Q1108-022	High Pressure Washer 2.2kW	day	0.98	0.0%	0.0%	100.0%	56.2%	43.8%	167.00	0.00	0.00	163.66	92.01	71.65	163.66	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	1.04	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	63.44	112.44	452.28	318.44	309.72	628.16	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	45.0%	55.0%		0.00	2.33	20.96	10.48	12.81	23.28	1.0%
	Total									1,600.08	114.77	636.89	420.92	1,930.82	2,351.74	
	Components (%)									68.0%	4.9%	27.1%	17.9%	82.1%	100.0%	
	Unit Rate	m								15.99	1.15	6.36	4.21	19.29	23.50	

Miscellaneous covers the cost for scoop, shovel, broom, etc.

$$Tl = L/(A \cdot E) + L \cdot Q \cdot t + Ll/V$$

$$Tl : \text{Total Operation Hour} = 5.98 \text{ hr}$$

$$L : \text{Cleaning Length} = 100.00 \text{ m}$$

$$A : \text{Work Capacity} = 30.00 \text{ m/h}$$

$$E : \text{Efficiency} = 0.85$$

$$Q : \text{Required Water per m}$$

$$0.10 \text{ m}^3/\text{m}$$

$$t : \text{Required Time for Water Supply}$$

$$0.20 \text{ hr}/\text{m}^3$$

$$Ll : \text{Moving Distance}$$

$$1.50 \text{ km}$$

$$V : \text{Moving Velocity}$$

$$25.00 \text{ km/hr}$$

$$T : \text{Daily Operation Hour}$$

$$6.12 \text{ hr}$$

503(3)b Cleaning Culvert in Place, more than  $\phi$ 910mm

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.59	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	339.84	0.00	0.00	0.00	339.84	339.84	
L020	Unskilled Labor	md	4.68	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,497.60	0.00	0.00	0.00	1,497.60	1,497.60	
Q1108-022	High Pressure Washer 2.2kW	day	1.17	0.0%	0.0%	100.0%	56.2%	43.8%	167.00	0.00	0.00	195.39	109.85	85.54	195.39	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	1.87	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	114.08	202.18	813.23	572.58	556.90	1,129.48	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	45.0%	55.0%		0.00	3.16	28.46	14.23	17.39	31.62	
	Total									1,951.52	205.34	1,037.08	696.65	2,497.28	3,193.93	
	Components (%)									61.1%	6.4%	32.5%	21.8%	78.2%	100.0%	
	Unit Rate	m								19.49	2.05	10.36	6.96	24.94	31.90	

Miscellaneous covers the cost for scoop, shovel, broom, etc.

$$Tl = L/(A \cdot E) + L \cdot Q \cdot t + Ll/V$$

$$Tl : \text{Total Operation Hour} = 7.17 \text{ hr}$$

$$L : \text{Cleaning Length} = 100.00 \text{ m}$$

$$A : \text{Work Capacity} = 25.00 \text{ m/h}$$

$$E : \text{Efficiency} = 0.85$$

$$Q : \text{Required Water per m}$$

$$0.12 \text{ m}^3/\text{m}$$

$$t : \text{Required Time for Water Supply}$$

$$0.20 \text{ hr}/\text{m}^3$$

$$Ll : \text{Moving Distance}$$

$$1.50 \text{ km}$$

$$V : \text{Moving Velocity}$$

$$25.00 \text{ km/hr}$$

$$T : \text{Daily Operation Hour}$$

$$6.12 \text{ hr}$$

503(4)a Cleaning Reconditioning of RCBC, Single Barrel

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.64	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	368.64	0.00	0.00	0.00	368.64	368.64	
L020	Unskilled Labor	md	5.08	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,625.60	0.00	0.00	0.00	1,625.60	1,625.60	
Q1108-022	High Pressure Washer 2.2kW	day	1.27	0.0%	0.0%	100.0%	56.2%	43.8%	167.00	0.00	0.00	212.09	119.23	92.86	212.09	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	3.60	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	219.61	389.22	1,565.57	1,102.29	1,072.11	2,174.40	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	45.0%	55.0%		0.00	4.38	39.43	19.71	24.09	43.81	1.0%
	Total									2,213.85	393.60	1,817.08	1,241.24	3,183.30	4,424.54	
	Components (%)									50.0%	8.9%	41.1%	28.1%	71.9%	100.0%	
	Unit Rate	m								22.12	3.93	18.15	12.40	31.80	44.20	

Miscellaneous covers the cost for scoop, shovel, broom, etc.

$$Tl = L/(A \cdot E) + L \cdot Q \cdot t + Ll/V$$

$$Tl : \text{Total Operation Hour} = 7.77 \text{ hr}$$

$$L : \text{Cleaning Length} = 100.00 \text{ m}$$

$$A : \text{Work Capacity} = 25.00 \text{ m/h}$$

$$E : \text{Efficiency} = 0.85$$

$$Q : \text{Required Water per m}$$

$$0.15 \text{ m}^3/\text{m}$$

$$t : \text{Required Time for Water Supply}$$

$$0.20 \text{ hr}/\text{m}^3$$

$$Ll : \text{Moving Distance}$$

$$1.50 \text{ km}$$

$$V : \text{Moving Velocity}$$

$$25.00 \text{ km/hr}$$

$$T : \text{Daily Operation Hour}$$

$$6.12 \text{ hr}$$

## 503(4)b Cleaning Reconditioning of RCBC, Double Barrel

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.69	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	397.44	0.00	0.00	0.00	397.44	397.44	
L020	Unskilled Labor	md	5.48	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,753.60	0.00	0.00	0.00	1,753.60	1,753.60	
Q1108-022	High Pressure Washer 2.2kW	day	1.37	0.0%	0.0%	100.0%	56.2%	43.8%	167.00	0.00	0.00	228.79	128.62	100.17	228.79	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	6.00	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	366.02	648.70	2,609.28	1,837.15	1,786.85	3,624.00	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	45.0%	55.0%		0.00	6.00	54.03	27.02	33.02	60.04	1.0%
Total										2,517.06	654.70	2,892.10	1,992.79	4,071.08	6,063.87	
Components (%)										41.5%	10.8%	47.7%	32.9%	67.1%	100.0%	
Unit Rate			m							25.15	6.54	28.90	19.92	40.68	60.60	

Miscellaneous covers the cost for scoop, shovel, broom, etc.

$$Tl = L/(A \cdot E) + L \cdot Q \cdot t + Ll/V$$

Tl : Total Operation Hour

L : Cleaning Length

A : Work Capacity

E : Efficiency

= 8.37 hr

= 100.00 m

= 25.00 m/h

= 0.85

Q : Required Water per m

t : Required Time for Water Supply

Ll : Moving Distance

V : Moving Velocity

T : Daily Operation Hour

0.18 m3/m

0.20 hr/m3

1.50 km

25.00 km/hr

6.12 hr

## 503(4)c Cleaning Reconditioning of RCBC, Triple Barrel

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.72	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	414.72	0.00	0.00	0.00	414.72	414.72	
L020	Unskilled Labor	md	5.72	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,830.40	0.00	0.00	0.00	1,830.40	1,830.40	
Q1108-022	High Pressure Washer 2.2kW	day	1.43	0.0%	0.0%	100.0%	56.2%	43.8%	167.00	0.00	0.00	238.81	134.26	104.55	238.81	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	10.37	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	632.61	1,121.16	4,509.71	3,175.20	3,088.28	6,263.48	
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	45.0%	55.0%		0.00	8.75	78.73	39.36	48.11	87.47	1.0%
Total										2,877.73	1,129.91	4,827.24	3,348.82	5,486.06	8,834.88	
Components (%)										32.6%	12.8%	54.6%	37.9%	62.1%	100.0%	
Unit Rate			m							28.76	11.29	48.25	33.47	54.83	88.30	

Miscellaneous covers the cost for scoop, shovel, broom, etc.

$$Tl = L/(A \cdot E) + L \cdot Q \cdot t + Ll/V$$

Tl : Total Operation Hour

L : Cleaning Length

A : Work Capacity

E : Efficiency

= 8.77 hr

= 100.00 m

= 25.00 m/h

= 0.85

Q : Required Water per m

t : Required Time for Water Supply

Ll : Moving Distance

V : Moving Velocity

T : Daily Operation Hour

0.20 m3/m

0.20 hr/m3

1.50 km

25.00 km/hr

6.12 hr

## 504(5) Grouted Riprap Class A (slope protection)

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0741	Grouted Riprap Class A	m3	10.00	15.8%	63.6%	20.6%	47.9%	52.1%	736.00	1,163.39	4,680.89	1,515.73	3,524.00	3,836.00	7,360.00	
W0106	Excavation, Backhoe 0.61m3 + Manpower	m3	3.30	24.9%	6.6%	68.5%	41.6%	58.4%	59.80	49.23	13.03	135.08	82.01	115.33	197.34	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.01	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	48.45	11.27	45.32	31.91	73.13	105.04	
W0133	Backfill C	m3	2.28	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	38.43	39.05	253.12	163.03	167.57	330.60	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										1,299.50	4,744.23	1,949.25	3,800.96	4,192.02	7,992.98	
Components (%)										16.3%	59.4%	24.4%	47.6%	52.4%	100.0%	
Unit Rate			m3							129.90	474.25	194.85	379.95	419.05	799.00	

## 505(1) Stone Masonry Retaining Wall

Unit: 10.00 m3

Unit Rate										Amount					Unit: 10.00 m3	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0742	Stone Masonry, laid	m3	10.00	14.5%	69.9%	15.6%	49.2%	50.8%	1,010.00	1,464.97	7,059.98	1,575.05	4,969.57	5,130.43	10,100.00	
W0106	Excavation, Backhoe 0.61m3 + Manpower	m3	4.98	24.9%	6.6%	68.5%	41.6%	58.4%	59.80	74.30	19.66	203.84	123.75	174.05	297.80	
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.76	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	132.40	30.79	123.85	87.20	199.84	287.04	
W0133	Backfill C	m3	2.22	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	37.42	38.02	246.46	158.74	163.16	321.90	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										1,709.08	7,148.45	2,149.20	5,339.27	5,667.47	11,006.74	
Components (%)										15.5%	64.9%	19.5%	48.5%	51.5%	100.0%	
Unit Rate			m3							170.80	714.41	214.79	533.60	566.40	1,100.00	



## 506(1) Hand-Laid Rock Apron (Loose Boulder Apron)

Unit: 100.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	Loss 13.0%
L019	Skilled Labor	md	0.00	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	0.00	0.00	0.00	0.00	0.00	0.00	
L020	Unskilled Labor	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	192.00	0.00	0.00	0.00	192.00	192.00	
W0122	Crushed Aggregate, transported	m3	113.00	9.2%	15.5%	75.3%	47.0%	53.0%	258.00	2,685.71	4,524.69	21,943.60	13,695.40	15,458.60	29,154.00	
R0102-061	Backhoe, hydraulic, crawler, 0.61m3	hr	8.70	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	681.21	1,271.59	13,185.20	8,004.77	7,133.23	15,138.00	
R0402-020	Truck Crane, Hydraulic 16-20t	hr	0.00	7.0%	7.7%	85.3%	51.5%	48.5%	1,070.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
Total										3,846.92	5,796.28	35,128.80	21,700.17	23,071.83	44,772.00	
Components (%)										8.6%	12.9%	78.5%	48.5%	51.5%	100.0%	
Unit Rate			m3							38.49	58.00	351.51	217.14	230.86	448.00	

## 507(2)a Steel Sheet Piles (76x457x4mm), furnished &amp; driven

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.51	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	293.76	0.00	0.00	0.00	293.76	293.76	3.0%
L019	Skilled Labor	md	1.02	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	418.20	0.00	0.00	0.00	418.20	418.20	
L020	Unskilled Labor	md	0.51	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	163.20	0.00	0.00	0.00	163.20	163.20	
W02041	Steel Sheet Pile	kg	1,632.70	0.0%	100.0%	0.0%	70.0%	30.0%	32.10	0.00	52,409.67	0.00	36,686.77	15,722.90	52,409.67	
R0502-045	Vibratory Pile Driver, Hydraulic 45 t-m	hr	3.34	1.9%	22.6%	75.5%	55.7%	44.3%	3,420.00	217.03	2,581.55	8,624.21	6,360.60	5,062.20	11,422.80	
R1001-150	Generator 101-150 kW	day	0.51	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	961.05	880.05	1,103.73	737.37	1,841.10	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	2.00	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	148.96	180.88	2,330.16	1,382.18	1,277.82	2,660.00	
	Miscellaneous	LS	1.00	20.0%	29.0%	60.0%	50.0%	50.0%		415.25	415.25	1,245.76	1,038.13	1,038.13	2,076.26	
Total										1,656.41	56,548.41	13,080.18	46,571.40	24,713.59	71,284.99	
Components (%)										2.3%	79.3%	18.3%	65.3%	34.7%	100.0%	
Unit Rate			m							16.57	565.60	130.83	465.81	247.19	713.00	

Miscellaneous covers the costs for jointing, cut-off, adjustment, etc.

$$T_c = [(0.75 + v \cdot N_{max}) \times L + \alpha] \times K / F$$

Tc : Required time for each sheet pile = 12.02 min/each

v : Coefficient = 0.02

α : Coefficient = 3.68

L : Driving length = 6.000 m

Nmax: Maximum SPT N-Value

K : Coefficient

F : Efficiency Factor

T : Operation Hour

30

1.02

1.00

6.56 hr/day

## 507(2)b Steel Sheet Piles (400x85x8mm), furnished &amp; driven

Unit: 100.00 m

501(2) Steel Sheet Piles (400x30mm), furnished & driven				Unit: 100.00 m												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L002	Foreman	md	0.51	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	293.76	0.00	0.00	0.00	293.76	293.76	
L019	Skilled Labor	md	1.02	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	418.20	0.00	0.00	0.00	418.20	418.20	
L020	Unskilled Labor	md	0.51	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	163.20	0.00	0.00	0.00	163.20	163.20	
W02041	Steel Sheet Pile	kg	3,550.00	0.0%	100.0%	0.0%	70.0%	30.0%	32.10	0.00	113,955.00	0.00	79,768.50	34,186.50	113,955.00	
R0502-045	Vibratory Pile Driver, Hydraulic 45 t-m	hr	3.34	1.9%	22.6%	75.5%	55.7%	44.3%	3,420.00	217.03	2,581.55	8,624.21	6,360.60	5,062.20	11,422.80	
R1001-150	Generator 101-150 kW	day	0.51	0.0%	52.2%	47.8%	59.9%	40.1%	3,610.00	0.00	961.05	880.05	1,103.73	737.37	1,841.10	
R0402-025	Truck Crane, Hydraulic 21-25t	hr	2.00	5.6%	6.8%	87.6%	52.0%	48.0%	1,330.00	148.96	180.88	2,330.16	1,382.18	1,277.82	2,660.00	
	Miscellaneous	LS	1.00	20.0%	20.0%	60.0%	50.0%	50.0%		784.52	784.52	2,353.57	1,961.31	1,961.31	3,922.62	3.0%
Total										2,025.68	118,463.01	14,187.99	90,576.32	44,100.37	134,676.68	
Components (%)										1.5%	88.0%	10.5%	67.3%	32.7%	100.0%	
Unit Rate			m							20.31	1,187.47	142.22	907.94	442.06	1,350.00	

Miscellaneous covers the costs for jointing, cut-off, adjustment, etc.

$$T_c = [(0.75 + v \cdot N_{max}) \times L + \alpha] \times K / F$$

Tc : Required time for each sheet pile = 12.02 min/each

v : Coefficient = 0.02

α : Coefficient = 3.68

L : Driving length = 6.000 m

Nmax: Maximum SPT N-Value

K : Coefficient

F : Efficiency Factor

T : Operation Hour

30

1.02

1.00

6.56 hr/day

509(1)		Gabions		Unit: 10.00 m3												
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab	Mat	Equip	For	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	403.20	0.00	0.00	0.00	403.20	403.20	
L019	Skilled Labor	md	2.70	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,107.00	0.00	0.00	0.00	1,107.00	1,107.00	
L020	Unskilled Labor	md	2.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	768.00	0.00	0.00	0.00	768.00	768.00	
W09602	Gabion Cage 500x1000x2000	each	10.00	0.0%	100.0%	0.0%	30.0%	70.0%	710.00	0.00	7,100.00	0.00	2,130.00	4,970.00	7,100.00	
W0129	Gravel/Stone, transported	m3	9.50	11.8%	18.6%	69.5%	44.8%	55.2%	197.00	221.74	348.83	1,300.94	838.90	1,032.60	1,871.50	-Loss 5.0%
R0102-061	Backhoe, hydraulic, crawler, 0.6lm3	hr	3.10	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	242.73	453.10	4,698.17	2,852.27	2,541.73	5,394.00	
M10202	Filter Cloth	m2	20.00	0.0%	100.0%	0.0%	60.0%	40.0%	82.30	0.00	1,646.00	0.00	987.60	658.40	1,646.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										2,742.67	9,547.92	5,999.11	6,808.78	11,480.92	18,289.70	
Components (%)										15.0%	52.2%	32.8%	37.2%	62.8%	100.0%	
Unit Rate			m3							274.42	955.33	600.25	681.26	1,148.74	1,830.00	

509(2)		Gabion Mattress t=300mm										Unit: 10.00 m3									
Item No.	Description	Unit	Quantity	Unit Rate					Total (PF)	Amount					Total (PP)	Remarks					
				Component (%)						Component (PP)											
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local							
L002	Foreman	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	403.20	0.00	0.00	0.00	403.20	403.20						
L019	Skilled Labor	md	2.70	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,107.00	0.00	0.00	0.00	1,107.00	1,107.00						
L020	Unskilled Labor	md	2.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	768.00	0.00	0.00	0.00	768.00	768.00						
W09605	Gabion Mat Cage H=300mm	m2	33.33	0.0%	100.0%	0.0%	30.0%	70.0%	617.00	0.00	20,564.61	0.00	6,169.38	14,395.23	20,564.61						
W0129	Gravel/Stone, transported	m3	9.50	11.8%	18.6%	69.5%	44.8%	55.2%	197.00	221.74	348.83	1,300.94	838.90	1,032.60	1,871.50						
R0102-061	Backhoe, hydraulic, crawler, 0.6lm3	hr	3.10	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	242.73	453.10	4,698.17	2,852.27	2,541.73	5,394.00						
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00						
Total										2,742.67	21,366.53	5,999.11	9,860.56	20,247.75	30,108.31						
Components (%)										9.1%	71.0%	19.9%	32.8%	67.2%	100.0%						
Unit Rate			m3							274.19	2,136.06	599.75	985.78	2,024.22	3,010.00						

509(3)		Filter Cloth										Unit: 10.00 m2									
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks					
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local							
L020	Unskilled Labor	md	0.06	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	19.20	0.00	0.00	0.00	19.20	19.20						
M10202	Filter Cloth	m2	10.70	0.0%	100.0%	0.0%	60.0%	40.0%	82.30	0.00	880.61	0.00	528.37	352.24	880.61	Loss 7.0%					
	Miscellaneous	LS	1.00	0.0%	10.0%	90.0%	50.0%	50.0%		0.00	1.80	16.20	9.00	9.00	18.00	2.0%					
Total										19.20	882.41	16.20	537.36	380.44	917.81						
Components (%)										2.1%	96.1%	1.8%	58.5%	41.5%	100.0%						
Unit Rate			m2							1.92	88.26	1.62	53.75	38.05	91.80						

510(1) Rubble Concrete Slops Protection										Unit: 10.00 m3						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
W0731	Rubble Concrete	m3	10.00	6.3%	51.1%	42.6%	52.5%	47.5%	931.00	582.38	4,760.13	3,967.49	4,888.32	4,421.68	9,310.00	
W0732	Granular Bedding for Rubble Concrete	m3	2.74	27.8%	12.4%	59.8%	37.3%	62.7%	400.00	304.63	135.91	655.46	409.10	686.90	1,096.00	
W0733	Washout Prevention Filter, furnish and laying	m2	28.57	2.1%	96.1%	1.8%	58.5%	41.5%	91.80	54.87	2,521.58	46.28	1,535.58	1,087.15	2,622.73	
	Miscellaneous	LS	1.00	2.0%	55.0%	43.0%	50.0%	50.0%		5.21	143.32	112.05	130.29	130.29	260.57	2.0%
Total										947.09	7,560.93	4,781.28	6,963.28	6,326.02	13,289.30	
Components (%)										7.1%	56.9%	36.0%	52.4%	47.6%	100.0%	
Unit Rate			m3							94.79	756.70	478.51	696.89	633.11	1,330.00	
Miscellaneous covers the costs for subgrade preparation, ween holes, etc.																

Miscellaneous covers the costs for subgrade preparation, weep holes, etc.

## Part H Miscellaneous Structures

## 600(1)a Concrete Curb, Type A (200x450mm)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	8.04	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	313.87	10,417.22	2,052.51	7,262.09	5,521.51	12,783.60	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	7.88	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,761.41	3.52	31.71	19.38	1,777.26	1,796.64	
W0236	Concrete Curing (plain concrete)	m3	7.88	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	50.41	6.20	14.47	11.37	59.71	71.08	
W0240	Formwork (plain concrete H<4m)	m2	90.19	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	11,972.17	8,071.94	158.45	589.78	19,612.78	20,202.56	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									14,097.86	18,498.89	2,257.14	7,882.61	26,971.27	34,853.88	
	Components (%)									40.4%	53.1%	6.5%	22.6%	77.4%	100.0%	
	Unit Rate	m								141.17	185.23	22.60	78.93	270.07	349.00	

## 600(1)b Concrete Curb, Type B (175x318mm)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.87	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	190.12	6,309.93	1,243.25	4,398.80	3,344.50	7,743.30	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	4.77	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,066.24	2.13	19.19	11.73	1,075.83	1,087.56	
W0236	Concrete Curing (plain concrete)	m3	4.77	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	30.52	3.75	8.76	6.88	36.15	43.03	
W0240	Formwork (plain concrete H<4m)	m2	63.87	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	8,478.35	5,716.32	112.21	417.66	13,889.22	14,306.88	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									9,765.22	12,032.14	1,383.41	4,835.08	18,345.69	23,180.77	
	Components (%)									42.1%	51.9%	6.0%	20.9%	79.1%	100.0%	
	Unit Rate	m								97.73	120.42	13.85	48.39	183.61	232.00	

## 600(3)a Combination Concrete Curb &amp; Gutter/Side Strip, Type A (675x364mm)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	13.82	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	539.51	17,906.22	3,528.07	12,482.85	9,490.95	21,973.80	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	13.55	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	3,028.82	6.06	54.52	33.32	3,056.08	3,089.40	
W0236	Concrete Curing (plain concrete)	m3	13.55	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	86.68	10.66	24.88	19.55	102.67	122.22	
W0240	Formwork (plain concrete H<4m)	m2	71.50	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	9,491.19	6,399.20	125.62	467.56	15,548.44	16,016.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									13,146.20	24,322.14	3,733.08	13,003.27	28,198.15	41,201.42	
	Components (%)									31.9%	59.0%	9.1%	31.6%	68.4%	100.0%	
	Unit Rate	m								131.46	243.21	37.33	130.03	281.97	412.00	

## 600(3)b Combination Concrete Curb &amp; Gutter/Side Strip, Type B (675x334mm)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	13.31	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	519.60	17,245.43	3,397.87	12,022.19	9,140.71	21,162.90	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	13.05	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	2,917.06	5.83	52.51	32.09	2,943.31	2,975.40	
W0236	Concrete Curing (plain concrete)	m3	13.05	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	83.48	10.27	23.96	18.83	98.88	117.71	
W0240	Formwork (plain concrete H<4m)	m2	65.52	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	8,697.38	5,863.99	115.11	428.45	14,248.03	14,676.48	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									12,217.52	23,125.52	3,589.45	12,501.56	26,430.93	38,932.49	
	Components (%)									31.4%	59.4%	9.2%	32.1%	67.9%	100.0%	
	Unit Rate	m								122.07	231.06	35.86	124.91	264.09	389.00	

## 600(3)c Combination Concrete Curb &amp; Gutter, Type C (475x334mm)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	10.76	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	420.05	13,941.46	2,746.89	9,718.92	7,389.48	17,108.40	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	10.55	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	2,358.24	4.72	42.45	25.94	2,379.46	2,405.40	
W0236	Concrete Curing (plain concrete)	m3	10.55	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	67.49	8.30	19.37	15.22	79.94	95.16	
W0240	Formwork (plain concrete 11<4m)	m2	71.50	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	9,491.19	6,399.20	125.62	467.56	15,548.44	16,016.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									12,336.96	20,353.67	2,934.33	10,227.64	25,397.32	35,624.96	
	Components (%)									34.6%	57.1%	8.2%	28.7%	71.3%	100.0%	
	Unit Rate	m								123.28	203.39	29.32	102.20	253.80	356.00	

## 601(1) PCC Pavement for Sidewalk (t=100mm)

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0852	Aggregate Subbase Course for Side Walk (t=100mm)	m2	100.00	26.8%	12.6%	60.6%	38.5%	61.5%	54.20	1,453.24	683.59	3,283.17	2,087.81	3,332.19	5,420.00	
W0853	PCC Pavement (Plain), t=100mm for Side Walk	m2	100.00	17.0%	69.2%	6.4%	46.0%	46.6%	416.00	7,067.01	28,795.54	2,655.97	19,124.33	19,394.18	41,600.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									8,520.25	29,479.13	5,939.14	21,212.15	22,726.37	47,020.00	
	Components (%)									18.1%	62.7%	12.6%	45.1%	48.3%	100.0%	
	Unit Rate	m2								85.17	294.67	59.37	212.03	227.17	470.00	

## 602(1) Right-of-Way Monuments

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	18.23	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	2,442.82	0.00	0.00	0.00	2,442.82	2,442.82	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.95	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	93.54	21.75	87.50	61.61	141.19	202.80	
W0135	Backfill, Manpower + Compactor	m3	16.28	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	989.24	70.23	202.23	155.54	1,106.16	1,261.70	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.64	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	103.06	3,420.58	673.96	2,384.57	1,813.03	4,197.60	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	2.59	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	578.94	1.16	10.42	6.37	584.15	590.52	
W0236	Concrete Curing (plain concrete)	m3	2.59	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	16.57	2.04	4.75	3.74	19.62	23.36	
W0240	Formwork (plain concrete 114m)	m2	72.00	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	9,557.56	6,443.95	126.49	470.83	15,657.17	16,128.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	346.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	1,250.84	6,231.61	632.67	4,370.03	3,745.09	8,115.12	
L019	Skilled Labor	md	3.50	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	1,435.00	0.00	0.00	0.00	1,435.00	1,435.00	
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	50.0%	50.0%		0.00	206.38	825.53	515.95	515.95	1,031.91	3.0%
	Total									16,467.56	16,397.70	2,563.56	7,968.64	27,460.19	35,428.83	
	Components (%)									46.5%	46.3%	7.2%	22.5%	77.5%	100.0%	
	Unit Rate	each								164.54	163.84	25.61	79.62	274.38	354.00	

Miscellaneous covers the cost for carving tools, etc.

## 602(2) Maintenance Marker Posts for Drainage Structure

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	144.00	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	19,296.00	0.00	0.00	0.00	19,296.00	19,296.00	
W0135	Backfill, Manpower + Compactor	m3	3.00	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	182.29	12.94	37.27	28.66	203.84	232.50	
W0115	Disposal of Surplus Soil (manpower loading)	m3	141.00	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	6,763.79	1,573.01	6,327.20	4,454.87	10,209.13	14,664.00	
W0161	Gravel Foundation Fill	m3	0.00	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.00	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	0.00	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0236	Concrete Curing (plain concrete)	m3	0.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	0.00	0.00	0.00	0.00	0.00	0.00	
W0243	Formwork (lean concrete)	m2	0.00	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	0.00	0.00	0.00	0.00	0.00	0.00	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.28	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	167.08	5,545.49	1,092.63	3,865.89	2,939.31	6,805.20	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	4.20	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	938.82	1.88	16.90	10.33	947.27	957.60	
W0237	Concrete Curing (reinforced concrete)	m3	4.20	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	13.45	1.37	3.20	2.51	15.51	18.02	
W0241	Formwork (reinforced concrete H<4m)	m2	104.00	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	14,089.79	9,333.05	185.16	684.22	22,923.78	23,608.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	640.10	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	2,308.71	11,501.89	1,167.74	8,065.91	6,912.43	14,978.34	
	Miscellaneous	LS	1.00	5.0%	50.0%	45.0%	50.0%	50.0%		120.84	1,208.39	1,087.56	1,208.39	1,208.39	2,416.79	3.0%
	Total									43,880.77	29,178.03	9,917.65	18,320.79	64,655.66	82,976.45	
	Components (%)									52.9%	35.2%	12.0%	22.1%	77.9%	100.0%	
	Unit Rate	each								438.93	291.86	99.20	183.26	646.74	830.00	

Miscellaneous covers the cost for paint, brushes, minor tools, etc.

## 602(3) Kilometer Post

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	9.36	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,254.24	0.00	0.00	0.00	1,254.24	1,254.24	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.23	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	59.00	13.72	55.19	38.86	89.06	127.92	
W0135	Backfill, Manpower + Compactor	m3	8.13	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	494.01	35.07	100.99	77.68	552.40	630.08	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.98	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	77.30	2,565.44	505.47	1,788.43	1,359.77	3,148.20	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.94	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	433.65	0.87	7.81	4.77	437.55	442.32	
W0237	Concrete Curing (reinforced concrete)	m3	1.94	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.21	0.63	1.48	1.16	7.16	8.32	
W0241	Formwork (reinforced concrete H<4m)	m2	22.01	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	2,981.89	1,975.20	39.19	144.80	4,851.47	4,996.27	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	61.20	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	220.74	1,099.70	111.65	771.18	660.90	1,432.08	
	Miscellaneous	LS	1.00	10.0%	50.0%	40.0%	50.0%	50.0%		36.12	180.59	144.47	180.59	180.59	361.18	3.0%
	Total									5,563.15	5,871.21	966.25	3,007.47	9,393.14	12,400.61	
	Components (%)									44.9%	47.3%	7.8%	24.3%	75.7%	100.0%	
	Unit Rate	each								556.29	587.09	96.62	300.73	939.27	1,240.00	

Miscellaneous covers the cost for paint, brushes, minor tools, etc.

## 603(3)a Metal Guardrails (Metal Beam) Type A (Embedded in Soil)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	29.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	9,280.00	0.00	0.00	0.00	9,280.00	9,280.00	
W0871	Guardrail Type A, furnish	m	100.00	8.0%	78.8%	13.2%	59.1%	40.9%	903.00	7,253.97	71,131.33	11,914.70	53,357.59	36,942.41	90,300.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									16,533.97	71,131.33	11,914.70	53,357.59	46,222.41	99,580.00	
	Components (%)									16.6%	71.4%	12.0%	53.6%	46.4%	100.0%	
	Unit Rate	m								165.37	711.46	119.17	533.68	462.32	996.00	

## 603(3)b Metal Guardrails (Metal Beam) Type B (Embedded in Concrete)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Labor	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	16.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	5,120.00	0.00	0.00	0.00	5,120.00	5,120.00	
W0872	Guardrail Type B, furnish	m	100.00	9.3%	76.4%	14.3%	58.0%	42.0%	708.00	6,578.73	54,106.79	10,114.48	41,057.81	29,742.19	70,800.00	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	54.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	197.65	984.70	99.97	690.54	591.78	1,282.32	
	Miscellaneous	LS	1.00	10.0%	50.0%	40.0%	55.0%	45.0%		308.81	1,544.05	1,235.24	1,698.45	1,389.64	3,088.09	4.0%
	Total									12,205.19	56,635.53	11,449.69	43,446.79	36,843.62	80,290.41	
	Components (%)									15.2%	70.5%	14.3%	54.1%	45.9%	100.0%	
	Unit Rate	m								122.07	566.42	114.51	434.52	368.48	803.00	

Miscellaneous covers the cost for sand fill, fixing devices, etc.

## 604(1) Fencing (Barbed Wire)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	16.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	5,120.00	0.00	0.00	0.00	5,120.00	5,120.00	
W04001	Lumber	m3	0.86	0.0%	100.0%	0.0%	10.0%	90.0%	14,800.00	0.00	12,728.00	0.00	1,272.80	11,455.20	12,728.00	
W02062	Barbed Wire	m	700.00	0.0%	100.0%	0.0%	35.0%	65.0%	2.50	0.00	1,750.00	0.00	612.50	1,137.50	1,750.00	
	Miscellaneous	LS	1.00	0.0%	30.0%	70.0%	55.0%	45.0%		0.00	235.18	548.74	431.16	352.76	783.92	4.0%
	Total									5,120.00	14,713.18	548.74	2,316.46	18,065.46	20,381.92	
	Components (%)									25.1%	72.2%	2.7%	11.4%	88.6%	100.0%	
	Unit Rate	m								51.25	147.26	5.49	23.19	180.81	204.00	

Miscellaneous covers the costs for fixing materials, cutting pliers, nippers, cart, minor tools, etc.

## 604(2) Fencing (Chain Link Fence Fabric)

Unit: 100.00 m

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	8.33	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	15.33	28.62	296.75	180.16	160.54	340.70	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	6.29	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	48.29	86.41	450.89	301.10	284.50	585.60	
W0133	Backfill C	m3	2.04	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	34.39	34.94	226.48	145.87	149.93	295.80	
W0204	Concrete (Class C, 21MPa, max agg. 12mm)	m3	6.38	2.3%	83.2%	14.5%	57.0%	43.0%	1,680.00	242.80	8,918.09	1,557.51	6,114.08	4,604.32	10,718.40	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	6.25	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,397.06	2.79	25.15	15.37	1,409.63	1,425.09	
W0236	Concrete Curing (plain concrete)	m3	6.25	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	39.99	4.92	11.48	9.02	47.36	56.38	
W0882	Chain Link Fence 25mm mesh (H=1.87m), furnished	m	100.00	7.1%	81.6%	11.3%	60.1%	39.9%	876.00	6,242.19	71,491.96	9,865.85	52,654.88	34,945.12	87,600.00	
L002	Foreman	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	1,728.00	0.00	0.00	0.00	1,728.00	1,728.00	
L020	Unskilled Labor	md	20.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	6,400.00	0.00	0.00	0.00	6,400.00	6,400.00	
R0402-005	Truck Crane, Hydraulic 2-5t	hr	2.86	18.2%	10.9%	70.9%	45.6%	54.4%	413.00	214.97	128.75	837.46	538.74	642.44	1,181.18	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									16,363.02	80,696.48	13,271.56	59,959.21	50,371.85	110,331.06	
	Components (%)									14.8%	73.1%	12.0%	54.3%	45.7%	100.0%	
	Unit Rate	m								163.14	804.54	132.32	597.79	502.21	1,100.00	

## 604(3) Fencing (Chain Link Fence Fabric on Bridge Railing)

Unit: 100.00 m

Unit: 100.00 m																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0882	Chain Link Fence 25mm mesh (H=1.87m), furnished	m	100.00	7.1%	81.6%	11.3%	60.1%	39.9%	876.00	6,242.19	71,491.96	9,865.85	52,654.88	34,945.12	87,600.00	
L002	Foreman	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	1,728.00	0.00	0.00	0.00	1,728.00	1,728.00	
L020	Unskilled Labor	md	20.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	6,400.00	0.00	0.00	0.00	6,400.00	6,400.00	
R0402-005	Truck Crane, Hydraulic 2-5t	hr	2.86	18.2%	10.9%	70.9%	45.6%	54.4%	413.00	214.97	128.75	837.46	538.74	642.44	1,181.18	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	581.46	387.64	533.00	436.09	969.09	1.0%
	Total									14,585.16	72,202.17	11,090.94	53,726.62	44,151.65	97,878.27	
	Components (%)									14.9%	73.8%	11.3%	54.9%	45.1%	100.0%	
	Unit Rate	m								145.88	722.18	110.93	537.39	441.61	979.00	

Miscellaneous covers the cost for grouting, etc.

## 605(1)a Warning Signs (Triangular 900mm)

605(1)a Warning Signs (Triangular 900mm)				Unit: 10.00 each												Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
W07201	Traffic Sign Board (aluminum)	m2	3.51	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	48,438.00	0.00	31,484.70	16,953.30	48,438.00	
W08706	Steel Gas Pipe, φ80	m	35.80	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	10,525.20	0.00	6,315.12	4,210.08	10,525.20	
W06003	Zinc Rich Primer for Steel	kg	1.10	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	411.40	0.00	267.41	143.99	411.40	
W06021	Phenol Resin Paint for Steel	kg	1.18	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	320.96	0.00	208.62	112.34	320.96	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H(4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	310.47	379.47	379.47	310.47	689.94	
Total										5,869.86	62,869.88	943.99	40,062.18	29,621.55	69,683.73	
Components (%)										8.4%	90.2%	1.4%	57.5%	42.5%	100.0%	
Unit Rate			each							587.12	6,288.46	94.42	4,007.15	2,962.85	6,970.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(1)b Warning Signs (Circular φ900mm)

605(1)b Warning Signs (Circular φ900mm)			Unit: 10.00 each													Remarks
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
W07201	Traffic Sign Board (aluminum)	m2	6.36	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	87,768.00	0.00	57,049.20	30,718.80	87,768.00	
W08706	Steel Gas Pipe, φ80	m	34.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	9,996.00	0.00	5,997.60	3,998.40	9,996.00	
W06003	Zinc Rich Primer for Steel	kg	1.04	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	388.96	0.00	252.82	136.14	388.96	
W06021	Phenol Resin Paint for Steel	kg	1.12	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	304.64	0.00	198.02	106.62	304.64	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H(4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	484.90	592.66	592.66	484.90	1,077.56	
Total										5,869.86	101,806.35	1,157.18	65,497.15	43,336.23	108,833.39	
Components (%)										5.4%	93.5%	1.1%	60.2%	39.8%	100.0%	
Unit Rate			each							587.88	10,196.22	115.90	6,559.74	4,340.26	10,900.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(2)a Regulatory Signs (Triangular 1039mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
M07201	Traffic Sign Board (aluminum)	m2	4.67	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	64,446.00	0.00	41,889.90	22,556.10	64,446.00	
M08706	Steel Gas Pipe, φ80	m	37.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	10,878.00	0.00	6,526.80	4,351.20	10,878.00	
M06003	Zinc Rich Primer for Steel	kg	1.13	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	422.62	0.00	274.70	147.92	422.62	
M06021	Phenol Resin Paint for Steel	kg	1.22	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	331.84	0.00	215.70	116.14	331.84	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg.38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	384.20	469.57	469.57	384.20	853.77	1.0%
Total										5,869.86	79,326.50	1,034.09	50,783.53	35,446.93	86,230.46	
Components (%)										6.8%	92.0%	1.2%	58.9%	41.1%	100.0%	
Unit Rate			each							586.78	7,929.85	103.37	5,076.56	3,543.44	8,620.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(2)b Regulatory Signs (Octagonal 600mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
M07201	Traffic Sign Board (aluminum)	m2	2.98	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	41,124.00	0.00	26,730.60	14,393.40	41,124.00	
M08706	Steel Gas Pipe, φ80	m	34.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	9,996.00	0.00	5,997.60	3,998.40	9,996.00	
M06003	Zinc Rich Primer for Steel	kg	1.04	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	388.96	0.00	252.82	136.14	388.96	
M06021	Phenol Resin Paint for Steel	kg	1.12	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	304.64	0.00	198.02	106.62	304.64	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	275.00	336.12	336.12	275.00	611.12	1.0%
Total										5,869.86	54,952.45	900.64	34,922.01	26,800.94	61,722.95	
Components (%)										9.5%	89.0%	1.5%	56.6%	43.4%	100.0%	
Unit Rate			each							586.77	5,493.20	90.03	3,490.90	2,679.10	6,170.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.



605(2)c Regulatory Signs (Circular  $\phi 600\text{mm}$ )

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
W07201	Traffic Sign Board (aluminum)	m	2.83	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	39,054.00	0.00	25,385.10	13,668.90	39,054.00	
W08706	Steel Gas Pipe, $\phi 80$	m	34.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	9,996.00	0.00	5,997.60	3,998.40	9,996.00	
W06003	Zinc Rich Primer for Steel	kg	1.04	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	388.96	0.00	252.82	136.14	388.96	
W06021	Phenol Resin Paint for Steel	kg	1.12	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	304.64	0.00	198.02	106.62	304.64	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	265.69	324.73	324.73	265.69	590.42	1.0%
Total										5,869.86	52,873.14	889.25	33,565.13	26,067.12	59,632.25	
Components (%)										9.8%	88.7%	1.5%	56.3%	43.7%	100.0%	
Unit Rate			each							586.67	5,284.45	88.88	3,354.70	2,605.30	5,960.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(2)d Regulatory Signs (Rectangular 450mmx750mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	578.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
W07201	Traffic Sign Board (aluminum)	m2	3.38	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	46,644.00	0.00	30,318.60	16,325.40	46,644.00	
W08706	Steel Gas Pipe, $\phi 80$	m	35.50	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	10,437.00	0.00	6,262.20	4,174.80	10,437.00	
W06003	Zinc Rich Primer for Steel	kg	1.09	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	407.66	0.00	264.98	142.68	407.66	
W06021	Phenol Resin Paint for Steel	kg	1.17	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	318.24	0.00	206.86	111.38	318.24	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	301.97	369.08	369.08	301.97	671.05	1.0%
Total										5,869.86	60,972.72	933.60	38,828.57	28,947.61	67,776.18	
Components (%)										8.7%	90.0%	1.4%	57.3%	42.7%	100.0%	
Unit Rate			each							587.19	6,099.41	93.39	3,884.22	2,895.78	6,780.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)a Informatory Signs (Rectangular 0.75mx1.00m, single post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80	
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00	
W07201	Traffic Sign Board (aluminum)	m2	7.50	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	103,500.00	0.00	67,275.00	36,225.00	103,500.00	
W08706	Steel Gas Pipe, φ80	m	38.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	11,172.00	0.00	6,703.20	4,468.80	11,172.00	
W06003	Zinc Rich Primer for Steel	kg	1.16	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	433.84	0.00	282.00	151.84	433.84	
W06021	Phenol Resin Paint for Steel	kg	1.25	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	340.00	0.00	221.00	119.00	340.00	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	561.35	686.09	686.09	561.35	1,247.44	1.0%
Total										5,869.86	118,871.04	1,250.61	76,574.15	49,417.36	125,991.51	
Components (%)										4.7%	94.3%	1.0%	60.8%	39.2%	100.0%	
Unit Rate		each								587.03	11,887.90	125.07	7,657.93	4,942.07	12,600.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)b Informatory Signs (Type A, double post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	633.60	0.00	0.00	0.00	633.60	633.60	
L020	Unskilled Labor	md	3.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,184.00	0.00	0.00	0.00	1,184.00	1,184.00	
W07201	Traffic Sign Board (aluminum)	m2	9.00	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	124,200.00	0.00	80,730.00	43,470.00	124,200.00	
W08705	Steel Gas Pipe, φ65	m	86.00	0.0%	100.0%	0.0%	60.0%	40.0%	251.00	0.00	21,586.00	0.00	12,951.60	8,634.40	21,586.00	
W06003	Zinc Rich Primer for Steel	kg	2.28	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	852.72	0.00	554.27	298.45	852.72	
W06021	Phenol Resin Paint for Steel	kg	2.46	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	669.12	0.00	434.93	234.19	669.12	
W0109	Excavation, Manpower	m3	26.55	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	3,557.70	0.00	0.00	0.00	3,557.70	3,557.70	
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.51	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	120.41	28.00	112.63	79.30	181.74	261.04	
W0135	Backfill, Manpower + Compactor	m3	24.04	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,460.76	103.70	298.63	229.68	1,633.42	1,863.10	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.56	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	99.94	3,316.93	653.54	2,312.31	1,758.09	4,070.40	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	2.51	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	561.06	1.12	10.10	6.17	566.11	572.28	
W0236	Concrete Curing (plain concrete)	m3	2.51	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	16.06	1.97	4.61	3.62	19.02	22.64	
W0240	Formwork (plain concrete H<4m)	m2	25.13	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	3,335.85	2,249.12	44.15	164.33	5,464.79	5,629.12	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	742.96	908.06	908.06	742.96	1,651.02	1.0%
Total										10,969.38	153,761.64	2,031.72	98,374.27	68,378.46	166,752.74	
Components (%)										6.6%	92.2%	1.2%	59.0%	41.0%	100.0%	
Unit Rate			each							1,098.56	15,397.96	203.47	9,852.01	6,847.99	16,700.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)c Informatory Signs (Type B, double post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	633.60	0.00	0.00	0.00	633.60	633.60	
L020	Unskilled Labor	md	3.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,184.00	0.00	0.00	0.00	1,184.00	1,184.00	
M07201	Traffic Sign Board (aluminum)	m2	30.15	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	416,070.00	0.00	270,445.50	145,624.50	416,070.00	
M08707	Steel Gas Pipe, $\phi$ 100	m	123.00	0.0%	100.0%	0.0%	60.0%	40.0%	410.00	0.00	50,430.00	0.00	30,258.00	20,172.00	50,430.00	
M06003	Zinc Rich Primer for Steel	kg	5.02	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	1,877.48	0.00	1,220.36	657.12	1,877.48	
M06021	Phenol Resin Paint for Steel	kg	5.41	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	1,471.52	0.00	956.49	515.03	1,471.52	
W0109	Excavation, Manpower	m3	26.55	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	3,557.70	0.00	0.00	0.00	3,557.70	3,557.70	
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.51	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	120.41	28.00	112.63	79.30	181.74	261.04	
W0135	Backfill, Manpower + Compactor	m3	24.04	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,460.76	103.70	298.63	229.68	1,633.42	1,863.10	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.56	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	99.94	3,316.93	653.54	2,312.31	1,758.09	4,070.40	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	2.51	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	561.06	1.12	10.10	6.17	566.11	572.28	
W0236	Concrete Curing (plain concrete)	m3	2.51	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	16.06	1.97	4.61	3.62	19.02	22.64	
W0240	Formwork (plain concrete H(4m)	m2	25.13	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	3,335.85	2,249.12	44.15	164.33	5,464.79	5,629.12	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	2,194.39	2,682.04	2,682.04	2,194.39	4,876.43	1.0%
	Total									10,969.38	477,744.24	3,805.69	308,357.80	184,161.51	492,519.31	
	Components (%)									2.2%	97.0%	0.8%	62.6%	37.4%	100.0%	
	Unit Rate	each								1,098.01	47,821.05	380.94	30,865.88	18,434.12	49,300.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)d Informatory Signs (Type C, double post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	633.60	0.00	0.00	0.00	633.60	633.60	
L020	Unskilled Labor	md	3.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,184.00	0.00	0.00	0.00	1,184.00	1,184.00	
M07201	Traffic Sign Board (aluminum)	m2	50.25	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	693,450.00	0.00	450,742.50	242,707.50	693,450.00	
M08708	Steel Gas Pipe, ø125	m	127.00	0.0%	100.0%	0.0%	60.0%	40.0%	503.00	0.00	63,881.00	0.00	38,328.60	25,552.40	63,881.00	
M06003	Zinc Rich Primer for Steel	kg	6.48	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	2,423.52	0.00	1,575.29	848.23	2,423.52	
M06021	Phenol Resin Paint for Steel	kg	6.98	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	1,898.56	0.00	1,234.06	664.50	1,898.56	
W0109	Excavation, Manpower	m3	33.09	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	4,434.06	0.00	0.00	0.00	4,434.06	4,434.06	
W0115	Disposal of Surplus Soil (manpower loading)	m3	3.40	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	163.10	37.93	152.57	107.42	246.18	353.60	
W0135	Backfill, Manpower + Compactor	m3	29.69	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,804.09	128.08	368.82	283.66	2,017.32	2,300.98	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.47	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	135.46	4,495.99	885.85	3,134.26	2,383.04	5,517.30	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	3.40	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	760.00	1.52	13.68	8.36	766.84	775.20	
W0236	Concrete Curing (plain concrete)	m3	3.40	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	21.75	2.68	6.24	4.91	25.76	30.67	
W0240	Formwork (plain concrete H(4m)	m2	32.04	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	4,253.11	2,867.56	56.29	209.52	6,967.44	7,176.96	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	3,528.27	4,312.33	4,312.33	3,528.27	7,840.59	1.0%
Total										13,389.17	772,715.10	5,795.78	499,940.91	291,959.13	791,900.04	
Components (%)										1.7%	97.6%	0.7%	63.1%	36.9%	100.0%	
Unit Rate		each								1,339.09	77,281.26	579.65	50,000.40	29,199.60	79,200.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

605(3)e Informatory Signs (Type D, double post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate						Total (PP)	Amount					Total (PP)	Remarks
				Component (%)							Component (PP)						
				Lab.	Mat.	Equip.	For.	Local	Labor		Material	Equipment	Foreign	Local			
L002	Foreman	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	633.60	0.00	0.00	0.00	633.60	633.60		
L020	Unskilled Labor	md	3.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,184.00	0.00	0.00	0.00	1,184.00	1,184.00		
M07201	Traffic Sign Board (aluminum)	m2	70.35	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	970,830.00	0.00	631,039.50	339,790.50	970,830.00		
M08709	Steel Gas Pipe, φ150	m	133.00	0.0%	100.0%	0.0%	60.0%	40.0%	707.00	0.00	94,031.00	0.00	56,418.60	37,612.40	94,031.00		
M06003	Zinc Rich Primer for Steel	kg	8.15	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	3,048.10	0.00	1,981.27	1,066.84	3,048.10		
M06021	Phenol Resin Paint for Steel	kg	8.77	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	2,385.44	0.00	1,550.54	834.90	2,385.44		
W0109	Excavation, Manpower	m3	42.94	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	5,753.96	0.00	0.00	0.00	5,753.96	5,753.96		
W0115	Disposal of Surplus Soil (manpower loading)	m3	4.77	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	228.82	53.21	214.05	150.71	345.37	496.08		
W0135	Backfill, Manpower + Compactor	m3	38.17	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	2,319.36	164.66	474.16	364.68	2,593.50	2,958.18		
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	4.87	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	190.12	6,309.93	1,243.25	4,398.80	3,344.50	7,743.30	Loss 2.0%	
W0235	Concrete Pouring by Manpower for small structures	m3	4.77	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,066.24	2.13	19.19	11.73	1,075.83	1,087.56		
W0236	Concrete Curing (plain concrete)	m3	4.77	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	30.52	3.75	8.76	6.88	36.15	43.03		
W0240	Formwork (plain concrete H4m)	m2	42.41	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	5,629.67	3,795.66	74.51	277.33	9,222.51	9,499.84		
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	4,948.62	6,048.32	6,048.32	4,948.62	10,996.94	1.0%	
	Total									17,036.28	1,085,572.52	8,082.23	702,248.35	408,442.68	1,110,691.03		
	Components (%)									1.5%	97.7%	0.7%	63.2%	36.8%	100.0%		
	Unit Rate	each								1,702.57	108,489.71	807.72	70,181.14	40,818.86	111,000.00		

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

605(3)f Informatory Signs (Type E, triple post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
M07201	Traffic Sign Board (aluminum)	m2	33.00	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	455,400.00	0.00	296,010.00	159,390.00	455,400.00	
M08707	Steel Gas Pipe, φ100	m	249.00	0.0%	100.0%	0.0%	60.0%	40.0%	410.00	0.00	102,090.00	0.00	61,254.00	40,836.00	102,090.00	
M06003	Zinc Rich Primer for Steel	kg	10.17	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	3,803.58	0.00	2,472.33	1,331.25	3,803.58	
M06021	Phenol Resin Paint for Steel	kg	10.95	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	2,978.40	0.00	1,935.96	1,042.44	2,978.40	
W0109	Excavation, Manpower	m3	39.82	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	5,335.88	0.00	0.00	0.00	5,335.88	5,335.88	
W0115	Disposal of Surplus Soil (manpower loading)	m3	3.77	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	180.85	42.06	169.17	119.11	272.97	392.08	
W0135	Backfill, Manpower + Compactor	m3	36.05	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	2,190.54	155.51	447.82	344.43	2,449.45	2,793.88	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	3.85	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	150.30	4,988.35	982.86	3,477.49	2,644.01	6,121.50	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	3.77	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	842.71	1.69	15.17	9.27	850.29	859.56	
W0236	Concrete Curing (plain concrete)	m3	3.77	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	24.12	2.97	6.92	5.44	28.57	34.01	
W0240	Formwork (plain concrete H4m)	m2	37.70	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	5,004.44	3,374.12	66.23	246.53	8,198.27	8,444.80	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	2,656.30	3,246.59	3,246.59	2,656.30	5,902.89	1.0%
Total										15,764.04	575,492.97	4,934.77	369,121.15	227,070.63	596,191.78	
Components (%)										2.6%	96.5%	0.8%	61.9%	38.1%	100.0%	
Unit Rate			each							1,575.90	57,530.79	493.32	36,900.24	22,699.76	59,600.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)g Informatory Signs (Type F, triple post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
W07201	Traffic Sign Board (aluminum)	m2	66.00	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	910,800.00	0.00	592,020.00	318,780.00	910,800.00	
W08708	Steel Gas Pipe, φ125	m	255.00	0.0%	100.0%	0.0%	60.0%	40.0%	503.00	0.00	128,265.00	0.00	76,959.00	51,306.00	128,265.00	
W06003	Zinc Rich Primer for Steel	kg	13.02	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	4,869.48	0.00	3,165.16	1,704.32	4,869.48	
W06021	Phenol Resin Paint for Steel	kg	14.02	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	3,813.44	0.00	2,478.74	1,334.70	3,813.44	
W0109	Excavation, Manpower	m3	49.64	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	6,651.76	0.00	0.00	0.00	6,651.76	6,651.76	
W0115	Disposal of Surplus Soil (manpower loading)	m3	5.11	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	245.13	57.01	229.30	161.45	369.99	531.44	
W0135	Backfill, Manpower + Compactor	m3	44.53	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	2,705.82	192.09	553.16	425.45	3,025.63	3,451.08	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	5.21	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	203.39	6,750.46	1,330.05	4,705.91	3,577.99	8,283.90	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	5.11	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,142.24	2.28	20.56	12.56	1,152.52	1,165.08	
W0236	Concrete Curing (plain concrete)	m3	5.11	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	32.69	4.02	9.38	7.37	38.72	46.09	
W0240	Formwork (plain concrete 11(4m)	m2	43.07	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	6,381.00	4,302.23	84.45	314.34	10,453.34	10,767.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	4,863.06	5,943.74	5,943.74	4,863.06	10,806.80	1.0%
Total										19,397.22	1,063,919.08	8,170.65	686,193.72	405,293.23	1,091,486.95	
Components (%)										1.8%	97.5%	0.7%	62.9%	37.1%	100.0%	
Unit Rate			each							1,937.08	106,246.97	815.95	68,525.89	40,474.11	109,000.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(3)h Informatory Signs (Type G, triple post)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
W07201	Traffic Sign Board (aluminum)	m2	109.20	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	1,506,960.00	0.00	979,524.00	527,436.00	1,506,960.00	
W08709	Steel Gas Pipe, φ 150	m	255.00	0.0%	100.0%	0.0%	60.0%	40.0%	707.00	0.00	180,285.00	0.00	108,171.00	72,114.00	180,285.00	
W06003	Zinc Rich Primer for Steel	kg	15.62	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	5,841.88	0.00	3,797.22	2,044.66	5,841.88	
W06021	Phenol Resin Paint for Steel	kg	16.82	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	4,575.04	0.00	2,973.78	1,601.26	4,575.04	
W0109	Excavation, Manpower	m3	64.41	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	8,630.94	0.00	0.00	0.00	8,630.94	8,630.94	
W0115	Disposal of Surplus Soil (manpower loading)	m3	7.16	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	343.47	79.88	321.30	226.22	518.42	744.64	
W0135	Backfill, Manpower + Compactor	m3	57.25	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	3,478.74	246.97	711.18	546.98	3,889.90	4,436.88	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	7.30	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	284.98	9,458.42	1,863.60	6,593.69	5,013.31	11,607.00	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	7.16	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,600.47	3.20	28.81	17.61	1,614.87	1,632.48	
W0236	Concrete Curing (plain concrete)	m3	7.16	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	45.80	5.63	13.15	10.33	54.25	64.58	
W0240	Formwork (plain concrete 11(4m)	m2	63.62	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	8,445.16	5,693.94	111.77	416.03	13,834.85	14,250.88	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	7,834.79	9,575.85	9,575.85	7,834.79	17,410.65	1.0%
Total										24,864.76	1,720,984.76	12,625.65	1,111,852.70	646,622.46	1,758,475.17	
Components (%)										1.4%	97.9%	0.7%	63.2%	36.8%	100.0%	
Unit Rate			each							2,486.63	172,247.71	1,263.66	111,281.68	64,718.32	176,000.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(4)a Special Signs (750x600mm)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
W07201	Traffic Sign Board (aluminum)	m2	4.50	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	62,100.00	0.00	40,365.00	21,735.00	62,100.00	
W08706	Steel Gas Pipe, 480	m	34.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	9,996.00	0.00	5,997.60	3,998.40	9,996.00	
W06003	Zinc Rich Primer for Steel	kg	1.04	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	388.96	0.00	252.82	136.14	388.96	
W06021	Phenol Resin Paint for Steel	kg	1.12	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	304.64	0.00	198.02	106.62	304.64	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	372.74	455.57	455.57	372.74	828.30	1.0%
Total										6,612.26	76,026.18	1,020.09	48,675.86	34,982.67	83,658.53	
Components (%)										7.9%	90.9%	1.2%	58.2%	41.8%	100.0%	
Unit Rate			each							661.55	7,606.39	102.06	4,870.00	3,500.00	8,370.00	

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

## 605(4)b Special Signs (600x880mm)

Unit: 10.00 each

Special Signs (G000	
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Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

605(4)c Special Signs (900x550mm)		Unit: 10.00 each														
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
W07201	Traffic Sign Board (aluminum)	m2	4.95	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	68,310.00	0.00	41,401.50	23,908.50	68,310.00	
W08706	Steel Gas Pipe, 680	m	33.50	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	9,849.00	0.00	5,909.40	3,939.60	9,849.00	
W06003	Zinc Rich Primer for Steel	kg	1.03	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	385.22	0.00	250.39	134.83	385.22	
W06021	Phenol Resin Paint for Steel	kg	1.10	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	299.20	0.00	194.48	104.72	299.20	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	399.98	488.86	488.86	399.98	888.84	1.0%
	Total									6,612.26	82,107.25	1,053.38	52,651.49	37,121.40	89,772.89	
	Components (%)									7.4%	91.5%	1.2%	58.6%	41.4%	100.0%	
	Unit Rate	each								661.43	8,213.20	105.37	5,266.74	3,713.26	8,980.00	
Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.																

605(4)d		Special Signs (850x750mm)				Unit: 10.00 each										
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	Total (PP)	
L002	Foreman	md	1.20	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	691.20	0.00	0.00	0.00	691.20	691.20	
L020	Unskilled Labor	md	4.20	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,344.00	0.00	0.00	0.00	1,344.00	1,344.00	
W07201	Traffic Sign Board (aluminum)	m2	6.38	0.0%	100.0%	0.0%	65.0%	35.0%	13,800.00	0.00	88,044.00	0.00	57,228.60	30,815.40	88,044.00	
W08706	Steel Gas Pipe, 680	m	35.50	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	10,437.00	0.00	6,262.20	4,174.80	10,437.00	
W06003	Zinc Rich Primer for Steel	kg	1.09	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	407.66	0.00	264.98	142.68	407.66	
W06021	Phenol Resin Paint for Steel	kg	1.17	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	318.24	0.00	206.86	111.38	318.24	
W0109	Excavation, Manpower	m3	13.27	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	1,778.18	0.00	0.00	0.00	1,778.18	1,778.18	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.26	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	60.44	14.06	56.54	39.81	91.23	131.04	
W0135	Backfill, Manpower + Compactor	m3	12.01	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	729.78	51.81	149.19	114.75	816.03	930.78	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.29	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	50.36	1,671.42	329.32	1,165.19	885.91	2,051.10	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	1.26	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	281.65	0.56	5.07	3.10	284.18	287.28	
W0236	Concrete Curing (plain concrete)	m3	1.26	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	8.06	0.99	2.31	1.82	9.55	11.37	
W0240	Formwork (plain concrete H<4m)	m2	12.57	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	1,668.59	1,125.01	22.08	82.20	2,733.48	2,815.68	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	491.61	600.86	600.86	491.61	1,092.48	1.0%
	Total									6,612.26	102,562.36	1,165.38	65,970.35	44,369.65	110,340.01	
	Components (%)									6.0%	93.0%	1.1%	59.8%	40.2%	100.0%	
	Unit Rate	each								659.19	10,224.63	116.18	6,576.71	4,423.29	11,000.00	
Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.																

607(2)a ReflectORIZED Pavement Studs (Raised Profile Type, one face reflective)										Unit: 10.00 each						
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	352.00	0.00	0.00	0.00	352.00	352.00	
M07401	Reflectorized Pavement Stud (one side reflective)	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	717.00	0.00	7,170.00	0.00	4,302.00	2,868.00	7,170.00	
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	55.0%	45.0%		0.00	112.83	112.83	124.11	101.55	225.66	3.0%
	Total									352.00	7,282.83	112.83	4,426.11	3,321.55	7,747.66	
	Components (%)									4.5%	94.0%	1.5%	57.1%	42.9%	100.0%	
	Unit Rate	each								35.21	728.50	11.29	442.74	332.26	775.00	
Miscellaneous covers the cost for mortar, cutter, minor tools, etc.																

## 607(2)b ReflectORIZED Pavement Studs (Raised Profile Type, two faces reflective)

Unit: 10.00 each

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
L020	Unskilled Labor	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	352.00	0.00	0.00	0.00	352.00	352.00	3.0%
M07402	ReflectORIZED Pavement Stud (two sides reflective)	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	776.00	0.00	7,760.00	0.00	4,656.00	3,104.00	7,760.00	
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	50.0%	50.0%		0.00	121.68	121.68	121.68	121.68	243.36	
Total										352.00	7,881.68	121.68	4,777.68	3,577.68	8,355.36	
Components (%)										4.2%	94.3%	1.5%	57.2%	42.8%	100.0%	
Unit Rate			each							35.22	788.61	12.17	478.03	357.97	836.00	

Miscellaneous covers the cost for mortar, cutter, minor tools, etc.

## 607(3) Chatter Bars (one side reflective)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	352.00	0.00	0.00	0.00	352.00	352.00	
M07405	Chatter Bar	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	1,740.00	0.00	17,400.00	0.00	10,440.00	6,960.00	17,400.00	
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	50.0%	50.0%		0.00	266.28	266.28	266.28	266.28	532.56	3.0%
	Total									352.00	17,666.28	266.28	10,706.28	7,578.28	18,284.56	
	Components (%)									1.9%	96.6%	1.5%	58.6%	41.4%	100.0%	
	Unit Rate	each								35.23	1,768.12	26.65	1,071.53	758.47	1,830.00	

Miscellaneous covers the cost for mortar, cutter, minor tools, etc.

## 608(1) Furnishing and Placing Top Soil for Plantation

Unit: 10.00 m3

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
M03001	Quarry Royalty (Borrow Soil)	m3	12.00	0.0%	100.0%	0.0%	0.0%	100.0%	15.00	0.00	180.00	0.00	0.00	180.00	180.00	Loss 20.0%
R0102-061	Backhoe, hydraulic, crawler, 0.61m3	hr	0.28	4.5%	8.4%	87.1%	52.9%	47.1%	1,740.00	21.92	40.92	424.35	257.62	229.58	487.20	
R0601-006	Dump Truck, 6.0-9.0 cu-yds (4.6-6.9m3)	hr	1.29	10.1%	17.9%	72.0%	50.7%	49.3%	604.00	78.70	139.47	561.00	394.99	384.17	779.16	
L020	Unskilled Labor	md	1.90	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	608.00	0.00	0.00	0.00	608.00	608.00	
	Miscellaneous	LS	1.00	5.0%	30.0%	65.0%	50.0%	50.0%		2.05	12.33	26.71	20.54	20.54	41.09	2.0%
	Total									710.67	372.72	1,012.05	673.16	1,422.29	2,095.45	
	Components (%)									33.9%	17.8%	48.3%	32.1%	67.9%	100.0%	
	Unit Rate	m3								71.22	37.35	101.43	67.46	142.54	210.00	

Miscellaneous covers the costs for screening, sieving, selection of soil, compaction, etc.

Q = 3600-q·f·E/Cm (Backhoe)

Q : Excavation Volume per hour

q : Excavation Volume per Cycle

f : Volume Coefficient

E : Efficiency

Cm : Cycle Time

Unskilled labor for filling work

Q = q·f·E/Cm (Dump Truck)

Q : Transportation Volume per hour

q : Loading Capacity of a Truck

f : Volume Coefficient

E : Efficiency

Cm : Cycle Time = A + 2·L/V

V : Vehicle speed

a : Loading time

L : Average Distance from Quarry

9.28 m3/hr

= 6.70 m3

1.00

0.90

0.65 hr

30.00 km/hr

0.27 hr

5.70 km

## 610(1) Sodding

Unit: 100.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.60	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	345.60	0.00	0.00	0.00	345.60	345.60	
L020	Unskilled Labor	md	6.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,048.00	0.00	0.00	0.00	2,048.00	2,048.00	
M11111	Sod	m2	100.00	0.0%	100.0%	0.0%	7.0%	93.0%	29.40	0.00	2,940.00	0.00	205.80	2,734.20	2,940.00	
	Miscellaneous	LS	1.00	0.0%	50.0%	50.0%	50.0%	50.0%		0.00	106.67	106.67	106.67	106.67	213.34	4.0%
	Total									2,393.60	3,046.67	106.67	312.47	5,234.47	5,546.94	
	Components (%)									43.2%	54.9%	1.9%	5.6%	94.4%	100.0%	
	Unit Rate	m2								23.95	30.48	1.07	3.13	52.37	55.50	

Miscellaneous covers the cost for pins, minor tools, minor materials, etc.



## 611(1)a Trees (Furnishing and Transplanting) Low Tree H≤1.5m

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
M11002	Tree H=1m	each	10.00	0.0%	100.0%	0.0%	7.0%	93.0%	215.00	0.00	2,150.00	0.00	150.50	1,999.50	2,150.00	
W0911	Digging Out Tree, Low Tree H≤1.5m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	18.90	189.00	0.00	0.00	0.00	189.00	189.00	
W0921	Tree Haulage, Low Tree H≤1.5m	each	10.00	13.7%	19.2%	67.1%	48.9%	51.1%	24.50	33.57	47.04	164.40	119.76	125.24	245.00	
W0931	Tree Planting, Low Tree H≤1.5m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	9.27	92.70	0.00	0.00	0.00	92.70	92.70	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									315.27	2,197.04	164.40	270.26	2,406.44	2,676.70	
	Components (%)									11.8%	82.1%	6.1%	10.1%	89.9%	100.0%	
	Unit Rate	each								31.57	219.97	16.46	27.06	240.94	268.00	

## 611(1)b Trees (Furnishing and Transplanting) Medium Tree 1.5m&lt;H≤3.0m

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
M11003	Tree H=1.5m	each	10.00	0.0%	100.0%	0.0%	7.0%	93.0%	503.00	0.00	5,030.00	0.00	352.10	4,677.90	5,030.00	
W0912	Digging Out Tree, Medium Tree 1.5m<H≤3.0m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	36.30	363.00	0.00	0.00	0.00	363.00	363.00	
W0922	Tree Haulage, Medium Tree 1.5m<H≤3.0m	each	10.00	13.7%	19.2%	67.1%	48.9%	51.1%	47.10	64.53	90.43	316.04	230.23	240.77	471.00	
W0932	Tree Planting, Medium Tree 1.5m<H≤3.0m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	27.70	277.00	0.00	0.00	0.00	277.00	277.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									704.53	5,120.43	316.04	582.33	5,558.67	6,141.00	
	Components (%)									11.5%	83.4%	5.1%	9.5%	90.5%	100.0%	
	Unit Rate	each								70.44	511.96	31.60	58.22	555.78	614.00	

## 611(1)c Trees (Furnishing and Transplanting) High Tree (young tree) 1.5m&lt;H≤3.0m

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
M11004	Tree H=2m	each	10.00	0.0%	100.0%	0.0%	7.0%	93.0%	838.00	0.00	8,380.00	0.00	586.60	7,793.40	8,380.00	
W0913	Digging Out Tree, High Tree (young tree) 1.5m<H≤3.0m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	64.20	642.00	0.00	0.00	0.00	642.00	642.00	
W0923	Tree Haulage, High Tree (young tree) 1.5m<H≤3.0m	each	10.00	13.7%	19.2%	67.1%	48.9%	51.1%	81.40	111.52	156.29	546.19	397.90	416.10	814.00	
W0933	Tree Planting, High Tree (young tree) 1.5m<H≤3.0m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	115.00	1,150.00	0.00	0.00	0.00	1,150.00	1,150.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									1,903.52	8,536.29	546.19	984.50	10,091.50	10,986.00	
	Components (%)									17.3%	77.7%	5.0%	9.0%	91.0%	100.0%	
	Unit Rate	each								190.59	854.72	54.69	98.58	1,001.42	1,100.00	

## 611(2)a Trees (Transplanting) Low Tree H≤1.5m

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0911	Digging Out Tree, Low Tree H≤1.5m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	18.90	189.00	0.00	0.00	0.00	189.00	189.00	
W0921	Tree Haulage, Low Tree H≤1.5m	each	10.00	13.7%	19.2%	67.1%	48.9%	51.1%	24.50	33.57	47.04	164.40	119.76	125.24	245.00	
W0931	Tree Planting, Low Tree H≤1.5m	each	10.00	100.0%	0.0%	0.0%	0.0%	100.0%	9.27	92.70	0.00	0.00	0.00	92.70	92.70	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	52.67	10.0%
	Total									315.27	47.04	164.40	119.76	406.94	579.37	
	Components (%)									54.4%	8.1%	28.4%	20.7%	70.2%	100.0%	
	Unit Rate	each								31.51	4.70	16.43	11.97	40.67	57.90	

Miscellaneous covers the cost for storage, maintenance, fertilizer, etc.

## 611(2)b Trees (Transplanting) Medium Tree 1.5m&lt;H≤3.0m

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0912	Digging Out Tree, Medium Tree 1.5m<H≤3.0m	each	100.00	100.0%	0.0%	0.0%	0.0%	100.0%	36.30	3,630.00	0.00	0.00	0.00	3,630.00	3,630.00	
W0922	Tree Haulage, Medium Tree 1.5m<H≤3.0m	each	100.00	13.7%	19.2%	67.1%	48.9%	51.1%	47.10	645.27	904.32	3,160.41	2,302.35	2,407.65	4,710.00	
W0932	Tree Planting, Medium Tree 1.5m<H≤3.0m	each	100.00	100.0%	0.0%	0.0%	0.0%	100.0%	27.70	2,770.00	0.00	0.00	0.00	2,770.00	2,770.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	1,111.00	10.0%
	Total									7,045.27	904.32	3,160.41	2,302.35	8,807.65	12,221.00	
	Components (%)									57.6%	7.4%	25.9%	18.8%	72.1%	100.0%	
	Unit Rate	each								70.33	9.03	31.55	22.98	87.93	122.00	

Miscellaneous covers the cost for storage, maintenance, fertilizer, etc.

## 611(2)e Trees (Transplanting) High Tree (young tree) 1.5m&lt;H≤3.0m

Unit: 100.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0913	Digging Out Tree, High Tree (young tree) 1.5m<H≤3.0m	each	100.00	100.0%	0.0%	0.0%	0.0%	100.0%	64.20	6,420.00	0.00	0.00	0.00	6,420.00	6,420.00	
W0923	Tree Haulage, High Tree (young tree) 1.5m<H≤3.0m	each	100.00	13.7%	19.2%	67.1%	48.9%	51.1%	81.40	1,115.18	1,562.88	5,461.94	3,979.01	4,160.99	8,140.00	
W0933	Tree Planting, High Tree (young tree) 1.5m<H≤3.0m	each	100.00	100.0%	0.0%	0.0%	0.0%	100.0%	115.00	11,500.00	0.00	0.00	0.00	11,500.00	11,500.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	2,606.00	10.0%
	Total									19,035.18	1,562.88	5,461.94	3,979.01	22,080.99	28,666.00	
	Components (%)									66.4%	5.5%	19.1%	13.9%	77.0%	100.0%	
	Unit Rate	each								190.58	15.65	54.68	39.84	221.07	287.00	

Miscellaneous covers the cost for storage, maintenance, fertilizer, etc.

## 611(3)a Planter Box of CHB (1.00m x 1.00m) for Road Side Plantation

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	19.86	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	2,661.24	0.00	0.00	0.00	2,661.24	2,661.24	
W0115	Disposal of Surplus Soil (manpower loading)	m3	5.61	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	269.11	62.59	251.74	177.25	406.19	583.44	
W0135	Backfill, Manpower + Compactor	m3	14.25	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	865.89	61.47	177.02	136.15	968.23	1,104.38	
L002	Foreman	md	0.70	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	403.20	0.00	0.00	0.00	403.20	403.20	
L007	Masonry	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	471.00	471.00	0.00	0.00	0.00	471.00	471.00	
L020	Unskilled Labor	md	2.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	864.00	0.00	0.00	0.00	864.00	864.00	
M12012	Concrete Hollow Block (load bearing) 6"x8"x16" (150x200x400mm)	each	433.50	0.0%	100.0%	0.0%	25.0%	75.0%	12.00	0.00	5,202.00	0.00	1,300.50	3,901.50	5,202.00	Loss 2.0%
W0221	Mortar (1:3)	m3	1.70	1.7%	93.8%	4.5%	58.1%	41.9%	1,820.00	51.41	2,901.85	140.74	1,796.39	1,297.61	3,094.00	
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.44	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	17.14	517.35	112.31	365.77	281.03	646.80	Loss 2.0%
W0235	Concrete Pouring by Manpower for small structures	m3	0.43	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	96.12	0.19	1.73	1.06	96.98	98.04	
W0236	Concrete Curing (plain concrete)	m3	0.43	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	2.75	0.34	0.79	0.62	3.26	3.88	
W0243	Formwork (lean concrete)	m2	3.40	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	216.65	299.47	4.08	19.77	500.43	520.20	
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	31.30	125.22	86.09	70.43	156.52	1.0%
	Total									5,918.50	9,076.57	813.63	3,883.58	11,925.12	15,808.70	
	Components (%)									37.4%	57.4%	5.1%	24.6%	75.4%	100.0%	
	Unit Rate	each								591.52	907.16	81.32	388.14	1,191.86	1,580.00	

Miscellaneous covers the cost for cart, minor tools, etc.

## 611(3)b Planter Box of CHB (3.00m x 1.00m) for Road Side Plantation

Unit: 10.00 each

Unit: 10.00 each		Unit Rate										Amount					Remarks
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)			
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign		Local		
W0109	Excavation, Manpower	m3	40.76	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	5,461.84	0.00	0.00	0.00	5,461.84	5,461.84		
W0115	Disposal of Surplus Soil (manpower loading)	m3	16.71	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	801.58	186.42	749.84	527.95	1,209.89	1,737.84		
W0135	Backfill, Manpower + Compactor	m3	24.05	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,461.38	103.75	298.76	229.78	1,634.10	1,863.88		
L002	Foreman	md	1.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	1,036.80	0.00	0.00	0.00	1,036.80	1,036.80		
L007	Masonry	md	2.50	100.0%	0.0%	0.0%	0.0%	100.0%	471.00	1,177.50	0.00	0.00	0.00	1,177.50	1,177.50		
L020	Unskilled Labor	md	6.80	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	2,176.00	0.00	0.00	0.00	2,176.00	2,176.00		
M12012	Concrete Hollow Block (load bearing) 6"x8"x16" (150x200x400mm)	each	1,082.00	0.0%	100.0%	0.0%	25.0%	75.0%	12.00	0.00	12,984.00	0.00	3,246.00	9,738.00	12,984.00	Loss 2.0%	
W0221	Mortar (1:3)	m3	4.32	1.7%	93.8%	4.5%	58.1%	41.9%	1,820.00	130.63	7,374.11	357.65	4,564.93	3,297.47	7,862.40		
W0201	Lean Concrete (17MPa, max agg. 38mm)	m3	0.95	2.6%	80.0%	17.4%	56.5%	43.5%	1,470.00	37.00	1,117.02	242.49	789.72	606.78	1,396.50	Loss 2.0%	
W0235	Concrete Pouring by Manpower for small structures	m3	0.93	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	207.88	0.42	3.74	2.29	209.75	212.04		
W0236	Concrete Curing (plain concrete)	m3	0.93	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	5.95	0.73	1.71	1.34	7.05	8.39		
W0243	Formwork (lean concrete)	m2	7.40	41.6%	57.6%	0.8%	3.8%	96.2%	153.00	471.52	651.80	8.88	43.02	1,089.18	1,132.20		
	Miscellaneous	LS	1.00	0.0%	20.0%	80.0%	55.0%	45.0%		0.00	74.10	296.40	203.77	166.72	370.49	1.0%	
	Total									12,968.08	22,492.34	1,959.46	9,608.80	27,811.08	37,419.88		
	Components (%)									34.7%	60.1%	5.2%	25.7%	74.3%	100.0%		
	Unit Rate	each								1,296.12	2,248.04	195.84	960.37	2,779.63	3,740.00		

Miscellaneous covers the cost for cart, minor tools, etc.

## 611(4)a Planter Square Type A (1.13mx1.13m) for Road Side Plantation

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	1.28	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	171.52	0.00	0.00	0.00	171.52	171.52	
W0115	Disposal of Surplus Soil (manpower loading)	m3	1.28	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	61.40	14.28	57.44	40.44	92.68	133.12	
W0951	Precast Curbstone for Planter Square, Furnish	m	3.69	13.3%	69.1%	17.6%	49.8%	50.2%	46.40	22.79	118.33	30.10	85.31	85.91	171.22	
W0952	Precast Curbstone for Planter Square, Laying	m	3.69	96.2%	3.1%	0.8%	1.9%	98.1%	35.00	124.18	3.97	0.99	2.48	126.67	129.15	
W0161	Gravel Foundation Fill	m3	0.06	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	5.91	3.05	14.50	9.10	14.36	23.46	
W0956	Treading Prevention Board for Planter Square, Furnish	m2	0.99	13.7%	71.7%	14.5%	51.7%	48.3%	248.00	33.76	176.09	35.68	126.84	118.68	245.52	
W0957	Treading Prevention Board for Planter Square, Laying	m2	0.99	93.5%	4.6%	2.0%	3.3%	96.7%	32.80	30.35	1.49	0.64	1.06	31.41	32.47	
	Miscellaneous	LS	1.00	0.0%	80.0%	20.0%	55.0%	45.0%		0.00	21.76	5.44	14.96	12.24	27.19	3%
	Total									449.91	338.96	144.78	280.19	653.46	933.65	
	Components (%)									48.2%	36.3%	15.5%	30.0%	70.0%	100.0%	
	Unit Rate	each								450.07	339.09	144.84	280.30	653.70	934.00	

Miscellaneous covers the cost for joint mortar, minor tools, etc.

## 611(4)b Planter Square Type B (0.68mx1.70m) for Road Side Plantation

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0109	Excavation, Manpower	m3	0.35	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	46.90	0.00	0.00	0.00	46.90	46.90	
W0115	Disposal of Surplus Soil (manpower loading)	m3	0.35	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	16.79	3.90	15.71	11.06	25.34	36.40	
W0951	Precast Curbstone for Planter Square, Furnish	m	3.35	13.3%	69.1%	17.6%	49.8%	50.2%	46.40	20.75	107.74	27.41	77.68	78.22	155.90	
W0952	Precast Curbstone for Planter Square, Laying	m	3.35	96.2%	3.1%	0.8%	1.9%	98.1%	35.00	113.08	3.62	0.90	2.26	115.34	117.60	
W0161	Gravel Foundation Fill	m3	0.05	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	4.92	2.55	12.08	7.59	11.96	19.55	
	Miscellaneous	LS	1.00	0.0%	80.0%	20.0%	55.0%	45.0%		0.00	9.03	2.26	6.21	5.08	11.29	3.0%
	Total									202.44	126.84	58.36	104.79	282.85	387.64	
	Components (%)									52.2%	32.7%	15.1%	27.0%	73.0%	100.0%	
	Unit Rate	each								202.63	126.96	58.41	104.89	283.11	388.00	

Miscellaneous covers the cost for joint mortar, minor tools, etc.

## 612(1)a ReflectORIZED Thermoplastic Pavement Markings (White)

Unit: 150.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	576.00	0.00	0.00	0.00	576.00	576.00	
L019	Skilled Labor	md	2.30	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	943.00	0.00	0.00	0.00	943.00	943.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
W06041	Road marking paint (White, solution type with glass beads 15~18%)	kg	900.00	0.0%	100.0%	0.0%	65.0%	35.0%	62.70	0.00	56,430.00	0.00	36,679.50	19,750.50	56,430.00	
Q1106-015	Line Marker (Solution Type, Hand Guide) 15cm	hr	5.90	0.0%	0.0%	100.0%	60.5%	39.5%	65.40	0.00	0.00	385.86	233.31	152.55	385.86	
Q1007-005	Water Tank, 5m3	day	1.04	0.0%	0.0%	100.0%	61.1%	38.9%	178.00	0.00	0.00	185.12	113.17	71.95	185.12	
R0603-002	Pick-up truck 2.2t	hr	9.80	14.2%	10.8%	75.0%	47.8%	52.2%	590.00	821.04	624.46	4,336.50	2,761.55	3,020.45	5,782.00	
	Miscellaneous	LS	1.00	0.0%	80.0%	20.0%	55.0%	45.0%		0.00	2,088.38	522.10	1,435.76	1,174.72	2,610.48	4.0%
	Total									3,300.04	59,142.84	5,429.58	41,223.29	26,649.17	67,872.46	
	Components (%)									4.9%	87.1%	8.0%	60.7%	39.3%	100.0%	
	Unit Rate	m2								21.98	393.86	36.16	274.53	177.47	452.00	

Miscellaneous covers the cost for primer, propane gas, minor tools, etc.

## 612(1)b ReflectORIZED Thermoplastic Pavement Markings (Yellow)

Unit: 150.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (Pp)	Amount					Total (Pp)	Remarks
				Component (%)						Component (Pp)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	576.00	0.00	0.00	0.00	576.00	576.00	
L019	Skilled Labor	md	2.30	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	943.00	0.00	0.00	0.00	943.00	943.00	
L020	Unskilled Labor	md	3.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	960.00	0.00	0.00	0.00	960.00	960.00	
M06042	Road marking paint (Yellow, solution type with glass beads 15~18%)	kg	900.00	0.0%	100.0%	0.0%	65.0%	35.0%	64.60	0.00	58,140.00	0.00	37,791.00	20,349.00	58,140.00	
Q1106-015	Line Marker (Solution Type, Hand Guide) 15cm	hr	5.90	0.0%	0.0%	100.0%	60.5%	39.5%	65.40	0.00	0.00	385.86	233.31	152.55	385.86	
Q1007-005	Water Tank, 5m3	day	1.04	0.0%	0.0%	100.0%	61.1%	38.9%	178.00	0.00	0.00	185.12	113.17	71.95	185.12	
R0603-002	Pick-up truck 2.2t	hr	9.80	14.2%	10.8%	75.0%	47.8%	52.2%	590.00	821.04	624.46	4,336.50	2,761.55	3,020.45	5,782.00	
	Miscellaneous	LS	1.00	0.0%	80.0%	20.0%	55.0%	45.0%		0.00	2,143.10	535.78	1,473.38	1,205.50	2,678.88	4.0%
Total										3,300.04	60,907.56	5,443.26	42,372.41	27,278.45	69,650.86	
Components (%)										4.7%	87.4%	7.8%	60.8%	39.2%	100.0%	
Unit Rate			m2							21.98	405.75	36.26	282.28	181.72	464.00	

Miscellaneous covers the cost for primer, propane gas, minor tools, etc.

## SPL 612(2) Removal of Existing Thermoplastic Pavement Markings

Unit: 10.00 m2

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	57.60	0.00	0.00	0.00	57.60	57.60	5.0%
L020	Unskilled Labor	md	2.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	640.00	0.00	0.00	0.00	640.00	640.00	
	Miscellaneous	LS	1.00	10.0%	10.0%	50.0%	50.0%	50.0%		3.49	13.95	17.44	17.44	17.44	34.88	
Total										701.09	13.95	17.44	17.44	715.04	732.48	
Components (%)										95.7%	1.9%	2.4%	2.4%	97.6%	100.0%	
Unit Rate		m2								70.06	1.39	1.74	1.74	71.46	73.20	

Miscellaneous covers the costs for minor tools such as cart, picks, chisel, etc.

## 615(1)a Delineator (ground standing type)

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	352.00	0.00	0.00	0.00	352.00	352.00	
M07501	Delineator, Type A (ground standing type)	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	1,450.00	0.00	14,500.00	0.00	8,700.00	5,800.00	14,500.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total										352.00	14,500.00	0.00	8,700.00	6,152.00	14,852.00	
Components (%)										2.4%	97.6%	0.0%	58.6%	41.4%	100.0%	
Unit Rate		each								35.31	1,454.69	0.00	872.81	617.19	1,490.00	

## 615(1)b Delineator (attached on guardrail)

Unit: 10.00 each

Unit: 15.00 each																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L020	Unskilled Labor	md	0.40	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	128.00	0.00	0.00	0.00	128.00	128.00	
M07503	Delineator, Type C (on guardrail)	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	564.00	0.00	5,640.00	0.00	3,384.00	2,256.00	5,640.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									128.00	5,640.00	0.00	3,384.00	2,384.00	5,768.00	
	Components (%)									2.2%	97.8%	0.0%	58.7%	41.3%	100.0%	
	Unit Rate	each								12.80	564.20	0.00	338.52	238.48	577.00	

615(2)a Curve Mirror 1-φ 600		Unit: 10.00 each													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
L002	Foreman	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	460.80	0.00	0.00	0.00	460.80	460.80
L020	Unskilled Labor	md	2.60	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	832.00	0.00	0.00	0.00	832.00	832.00
W07601	Road Curve Mirror φ 600	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	11,000.00	0.00	110,000.00	0.00	66,000.00	44,000.00	110,000.00
W08706	Steel Gas Pipe, φ 80	m	39.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	11,466.00	0.00	6,879.60	4,586.40	11,466.00
W06003	Zinc Rich Primer for Steel	kg	1.27	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	474.98	0.00	308.74	166.24	474.98
W06021	Phenol Resin Paint for Steel	kg	1.37	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	372.64	0.00	242.22	130.42	372.64
W0109	Excavation, Manpower	m3	21.56	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	2,889.04	0.00	0.00	0.00	2,889.04	2,889.04
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.86	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	137.19	31.91	128.34	90.36	207.08	297.44
W0135	Backfill, Manpower + Compactor	m3	18.70	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,136.29	80.67	232.30	178.66	1,270.59	1,449.25
W0161	Gravel Foundation Fill	m3	0.36	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	35.44	18.33	86.99	54.63	86.13	140.76
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.55	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	99.55	3,303.97	650.98	2,303.28	1,751.22	4,054.50
W0235	Concrete Pouring by Manpower for small structures	m3	2.50	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	558.82	1.12	10.06	6.15	563.85	570.00
W0236	Concrete Curing (plain concrete)	m3	2.55	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	15.31	2.01	4.68	3.68	19.32	23.00
W0240	Formwork (plain concrete H4m)	m2	20.00	59.3%	40.0%	0.8%	2.9%	97.1%	224.00	2,654.88	1,789.99	35.14	130.79	4,349.21	4,480.00
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	618.80	756.31	756.31	618.80	1,375.10
Total										8,820.32	128,160.40	1,904.79	76,954.40	61,931.12	138,885.51
Components (%)										6.4%	92.3%	1.4%	55.4%	44.6%	100.0%
Unit Rate			each							882.76	12,816.04	190.48	7,701.78	6,193.11	13,900.00

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

615(2)b Curve Mirror 2-φ 600		Unit: 10.00 each													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
L002	Foreman	md	1.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	633.60	0.00	0.00	0.00	633.60	633.60
L020	Unskilled Labor	md	3.70	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	1,184.00	0.00	0.00	0.00	1,184.00	1,184.00
W07601	Road Curve Mirror φ 600	each	20.00	0.0%	100.0%	0.0%	60.0%	40.0%	11,000.00	0.00	220,000.00	0.00	132,000.00	88,000.00	220,000.00
W08706	Steel Gas Pipe, φ 80	m	39.00	0.0%	100.0%	0.0%	60.0%	40.0%	294.00	0.00	11,466.00	0.00	6,879.60	4,586.40	11,466.00
W06003	Zinc Rich Primer for Steel	kg	1.27	0.0%	100.0%	0.0%	65.0%	35.0%	374.00	0.00	474.98	0.00	308.74	166.24	474.98
W06021	Phenol Resin Paint for Steel	kg	1.37	0.0%	100.0%	0.0%	65.0%	35.0%	272.00	0.00	372.64	0.00	242.22	130.42	372.64
W0109	Excavation, Manpower	m3	21.56	100.0%	0.0%	0.0%	0.0%	100.0%	134.00	2,889.04	0.00	0.00	0.00	2,889.04	2,889.04
W0115	Disposal of Surplus Soil (manpower loading)	m3	2.86	46.1%	10.7%	43.1%	30.4%	69.6%	104.00	137.19	31.91	128.34	90.36	207.08	297.44
W0135	Backfill, Manpower + Compactor	m3	18.70	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	1,136.29	80.67	232.30	178.66	1,270.59	1,449.25
W0161	Gravel Foundation Fill	m3	0.36	25.2%	13.0%	61.8%	38.8%	61.2%	391.00	35.44	18.33	86.99	54.63	86.13	140.76
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	2.55	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	99.55	3,303.97	650.98	2,303.28	1,751.22	4,054.50
W0235	Concrete Pouring by Manpower for small structures	m3	2.50	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	558.82	1.12	10.06	6.15	563.85	570.00
W0236	Concrete Curing (plain concrete)	m3	2.50	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	15.99	1.97	4.59	3.61	18.94	22.55
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	55.0%	45.0%		0.00	1,096.00	1,339.55	1,339.55	1,096.00	2,435.55
Total										6,689.93	236,847.57	2,452.81	143,406.79	102,583.52	245,990.31
Components (%)										2.7%	96.3%	1.0%	58.3%	41.7%	100.0%
Unit Rate			each							669.02	23,685.69	245.29	14,341.24	10,258.76	24,600.00

Miscellaneous covers the cost for fixtures, brushes, minor tools, etc.

615(3) Dustproof Concrete Paving for Median		Unit: 100.00 m2													
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local	
W0128	Selected Sand, transported	m3	5.50	12.9%	20.0%	67.1%	43.5%	56.5%	166.00	117.72	182.81	612.47	397.08	515.92	913.00
W0135	Backfill, Manpower + Compactor	m3	5.00	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	303.82	21.57	62.11	47.77	339.73	387.50
W0202	Concrete (Class B, 17MPa, max agg. 50mm)	m3	7.14	2.9%	77.5%	19.6%	56.2%	43.8%	1,360.00	284.77	7,521.27	1,904.35	5,457.78	4,252.62	9,710.40
W0235	Concrete Pouring by Manpower for small structures	m3	7.00	98.0%	0.2%	1.8%	1.1%	98.9%	228.00	1,564.71	3.13	28.16	17.21	1,578.79	1,596.00
W0236	Concrete Curing (plain concrete)	m3	7.00	70.9%	8.7%	20.4%	16.0%	84.0%	9.02	44.78	5.51	12.85	10.10	53.04	63.14
	Miscellaneous	LS	1.00	0.0%	70.0%	30.0%	55.0%	45.0%		0.00	177.38	76.02	139.37	114.03	253.40
Total										2,315.80	7,911.67	2,695.97	6,069.31	6,854.13	12,923.44
Components (%)										17.9%	61.2%	20.9%	47.0%	53.0%	100.0%
Unit Rate			m2							23.12	79.12	26.96	60.69	68.54	129.00

Miscellaneous covers the cost for forms, joints, etc.

Sand base thickness = 0.050 m  
Concrete pavement thickness = 0.070 m

SPL 620(1)a Traffic Signal Pole Type A (Mast Arm Post H=6.7m)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	5.29	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	9.74	18.17	188.45	114.41	101.95	216.36	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	1.73	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	13.28	23.77	124.01	82.81	78.25	161.06	
W0133	Backfill C	m3	3.56	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	60.01	60.97	395.23	254.56	261.64	516.20	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.76	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	68.71	2,280.39	449.31	1,589.71	1,208.69	2,798.40	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.73	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	70.39	0.88	375.08	201.01	245.33	446.34	
W0237	Concrete Curing (reinforced concrete)	m3	1.73	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	5.54	0.56	1.32	1.04	6.38	7.42	
W0241	Formwork (reinforced concrete H<4m)	m2	5.76	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	780.36	516.91	10.26	37.90	1,269.62	1,307.52	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	144.30	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	520.46	2,592.91	263.25	1,818.33	1,558.29	3,376.62	
L002	Foreman	md	0.23	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	132.48	0.00	0.00	0.00	132.48	132.48	
L019	Skilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	102.50	0.00	0.00	0.00	102.50	102.50	
L020	Unskilled Labor	md	0.42	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	134.40	0.00	0.00	0.00	134.40	134.40	
W1101	Traffic Signal Post Type A (Mast Arms) H=6.7m, Furnished	each	1.00	6.9%	69.3%	23.8%	59.7%	40.3%	22,200.00	1,521.27	15,388.69	5,290.04	13,250.67	8,949.33	22,200.00	
R0402-015	Truck Crane, Hydraulic 11-15t	hr	0.97	8.5%	8.3%	83.2%	50.5%	49.5%	881.00	72.64	70.93	711.00	431.88	422.69	854.57	
W1001	Underground Cable Duct	m	20.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	962.96	4,932.03	1,365.01	3,412.31	3,847.69	7,260.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	474.17	316.11	434.65	355.62	790.28	2.0%
Total										4,454.73	26,360.37	9,489.05	21,629.28	18,674.87	40,304.15	
Components (%)										11.1%	65.4%	23.5%	53.7%	46.3%	100.0%	
Unit Rate		each								4,454.27	26,357.66	9,488.07	21,627.05	18,672.95	40,300.00	

Miscellaneous covers the cost for fixtures, embedment, minor tools, etc.

SPL 620(1)b Traffic Signal Pole Type A (Mast Arm Post H=6.0m)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	5.29	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	9.74	18.17	188.45	114.41	101.95	216.36	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	1.73	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	13.28	23.77	124.01	82.81	78.25	161.06	
W0133	Backfill C	m3	3.56	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	60.01	60.97	395.23	254.56	261.64	516.20	
W0203	Concrete (Class A, 21MPa, max size 38mm)	m3	2.07	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	80.81	2,682.05	528.44	1,869.72	1,421.58	3,291.30	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	2.03	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	82.59	1.03	440.12	235.86	287.88	523.74	
W0237	Concrete Curing (reinforced concrete)	m3	2.03	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	6.50	0.66	1.55	1.22	7.49	8.71	
W0241	Formwork (reinforced concrete H<4m)	m2	7.46	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,010.67	669.47	13.28	49.08	1,644.34	1,693.42	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	224.40	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	809.36	4,032.22	409.38	2,827.67	2,423.29	5,250.96	
L002	Foreman	md	0.23	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	132.48	0.00	0.00	0.00	132.48	132.48	
L019	Skilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	102.50	0.00	0.00	0.00	102.50	102.50	
L020	Unskilled Labor	md	0.42	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	134.40	0.00	0.00	0.00	134.40	134.40	
W1102	Traffic Signal Post Type A (Mast Arms) H=6.0m, Furnished	each	1.00	7.2%	68.5%	24.3%	59.4%	40.6%	21,200.00	1,517.29	14,523.72	5,159.00	12,586.15	8,613.85	21,200.00	
R0402-015	Truck Crane, Hydraulic 11-15t	hr	0.97	8.5%	8.3%	83.2%	50.5%	49.5%	881.00	72.64	70.93	711.00	431.88	422.69	854.57	
W1001	Underground Cable Duct	m	20.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	962.96	4,932.03	1,365.01	3,412.31	3,847.69	7,260.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	496.15	330.77	454.80	372.11	826.91	2.0%
Total										4,995.23	27,511.16	9,666.22	22,320.47	19,852.14	42,172.61	
Components (%)										11.8%	65.2%	22.9%	52.9%	47.1%	100.0%	
Unit Rate		each								4,998.48	27,529.02	9,672.50	22,334.96	19,865.04	42,200.00	

Miscellaneous covers the cost for fixtures, embedment, minor tools, etc.

## SPL 620(1)c Traffic Signal Pole Type B (φ114.3mm x 4.2m)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	3.47	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	6.39	11.92	123.61	75.05	66.87	141.92	Loss 2.0%
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.70	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	5.37	9.62	50.18	33.51	31.66	65.17	
W0133	Backfill C	m3	2.77	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	46.69	47.44	307.52	198.07	203.58	401.65	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.71	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.72	919.93	181.25	641.30	487.60	1,128.90	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.70	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.48	0.35	151.77	81.33	99.27	180.60	
W0237	Concrete Curing (reinforced concrete)	m3	0.70	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.24	0.23	0.53	0.42	2.58	3.00	
W0241	Formwork (reinforced concrete H<4m)	m2	3.52	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	476.89	315.89	6.27	23.16	775.88	799.04	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	34.20	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	123.35	614.54	62.38	430.95	369.33	800.28	
L002	Foreman	md	0.17	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	97.92	0.00	0.00	0.00	97.92	97.92	
L019	Skilled Labor	md	0.19	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	77.90	0.00	0.00	0.00	77.90	77.90	
L020	Unskilled Labor	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	105.60	0.00	0.00	0.00	105.60	105.60	
W1103	Traffic Signal Posts Type B φ114.3mm x 4.2m, Furnished	each	1.00	12.4%	53.0%	34.6%	53.6%	46.4%	9,400.00	1,163.45	4,980.51	3,256.03	5,036.11	4,363.89	9,400.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.74	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	55.74	33.45	270.45	168.83	190.81	359.64	
W1001	Underground Cable Duct	m	20.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	962.96	4,932.03	1,365.01	3,412.31	3,847.69	7,260.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	249.86	166.57	229.04	187.39	416.43	
Total										3,180.70	12,115.76	5,941.59	10,330.07	10,907.98	21,238.05	
Components (%)										15.0%	57.0%	28.0%	48.6%	51.4%	100.0%	
Unit Rate			each							3,175.00	12,094.06	5,930.94	10,311.57	10,888.43	21,200.00	

Miscellaneous covers the cost for fixtures, embedment, minor tools, etc.

## SPL 620(1)d Traffic Signal Pole Type C (φ114.3mm x 3.4m)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	3.18	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	5.85	10.93	113.28	68.77	61.29	130.06	Loss 2.0%
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.70	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	5.37	9.62	50.18	33.51	31.66	65.17	
W0133	Backfill C	m3	2.48	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	41.80	42.47	275.33	177.34	182.26	359.60	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.99	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	38.65	1,282.72	252.73	894.21	679.89	1,574.10	
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.97	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	39.47	0.49	210.30	112.70	137.56	250.26	
W0237	Concrete Curing (reinforced concrete)	m3	0.97	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.10	0.32	0.74	0.58	3.58	4.16	
W0241	Formwork (reinforced concrete H<4m)	m2	5.13	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	695.01	460.37	9.13	33.75	1,130.76	1,164.51	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	39.10	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	141.03	702.58	71.33	492.70	422.24	914.94	
L002	Foreman	md	0.17	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	97.92	0.00	0.00	0.00	97.92	97.92	
L019	Skilled Labor	md	0.19	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	77.90	0.00	0.00	0.00	77.90	77.90	
L020	Unskilled Labor	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	105.60	0.00	0.00	0.00	105.60	105.60	
W1104	Traffic Signal Posts Type C φ114.3mm x 3.4m, Furnished	each	1.00	12.8%	51.7%	35.5%	53.1%	46.9%	9,060.00	1,161.01	4,686.19	3,212.80	4,810.83	4,249.17	9,060.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.74	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	55.74	33.45	270.45	168.83	190.81	359.64	
W1001	Underground Cable Duct	m	20.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	962.96	4,932.03	1,365.01	3,412.31	3,847.69	7,260.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	257.09	171.39	235.66	192.81	428.48	
Total										3,431.41	12,418.25	6,002.68	10,441.19	11,411.15	21,852.34	
Components (%)										15.7%	56.8%	27.5%	47.8%	52.2%	100.0%	
Unit Rate										3,438.90	12,445.33	6,015.77	10,463.96	11,436.04	21,900.00	

Miscellaneous covers the cost for fixtures, embedment, minor tools, etc.

## SPL 620(1)e Traffic Signal Pole Type D (φ114.3mm x 3.0m)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	2.03	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	3.74	6.97	72.32	43.91	39.12	83.03	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.29	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	2.23	3.98	20.79	13.88	13.12	27.00	
W0133	Backfill C	m3	1.74	11.6%	11.8%	76.6%	49.3%	50.7%	145.00	29.33	29.89	193.17	124.42	127.88	252.30	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.30	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	11.71	388.70	76.59	270.97	206.03	477.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.29	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	11.80	0.15	62.87	33.69	41.13	74.82	
W0237	Concrete Curing (reinforced concrete)	m3	0.29	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	0.93	0.09	0.22	0.17	1.07	1.24	
W0241	Formwork (reinforced concrete H<4m)	m2	1.92	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	260.12	172.30	3.42	12.63	423.21	435.84	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	27.40	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	98.83	492.35	49.99	345.27	295.89	641.16	
L002	Foreman	md	0.17	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	97.92	0.00	0.00	0.00	97.92	97.92	
L019	Skilled Labor	md	0.19	100.0%	0.0%	0.0%	0.0%	100.0%	410.00	77.90	0.00	0.00	0.00	77.90	77.90	
L020	Unskilled Labor	md	0.33	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	105.60	0.00	0.00	0.00	105.60	105.60	
W1105	Pedestrian Signal Posts Type D φ114.3mm x 3.0m, Furnished	each	1.00	13.0%	51.1%	35.8%	52.9%	47.1%	8,890.00	1,159.92	4,543.51	3,186.57	4,698.79	4,191.21	8,890.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.74	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	55.74	33.45	270.45	168.83	190.81	359.64	
W1001	Underground Cable Duct	m	20.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	962.96	4,932.03	1,365.01	3,412.31	3,847.69	7,260.00	
	Miscellaneous	LS	1.00	0.0%	60.0%	40.0%	55.0%	45.0%		0.00	225.40	150.27	206.62	169.05	375.67	2.0%
Total										2,878.72	10,828.74	5,451.66	9,331.50	9,827.62	19,159.12	
Components (%)										15.0%	56.5%	28.5%	48.7%	51.3%	100.0%	
Unit Rate			each							2,884.86	10,851.85	5,463.29	9,351.41	9,848.59	19,200.00	

Miscellaneous covers the cost for fixtures, embedment, minor tools, etc.

## SPL 620(2)a Traffic Signal Lamps Type A (6 vehicle lamps)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.12	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	69.12	0.00	0.00	0.00	69.12	69.12	
L012	Electrician	md	0.15	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	64.35	0.00	0.00	0.00	64.35	64.35	
L020	Unskilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	80.00	0.00	0.00	0.00	80.00	80.00	
W07273	Traffic Signal Lights (6 lamps)	set	1.00	0.0%	100.0%	0.0%	55.0%	45.0%	186,000.00	0.00	186,000.00	0.00	102,300.00	83,700.00	186,000.00	
R0402-015	Truck Crane, Hydraulic 11-15t	hr	0.80	8.5%	8.3%	83.2%	50.5%	49.5%	881.00	59.91	58.50	586.39	356.19	348.61	704.80	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
	Miscellaneous	LS	1.00	30.0%	30.0%	40.0%	50.0%	50.0%		1,692.35	1,692.35	2,256.47	2,820.59	2,820.59	5,641.18	3.0%
Total										2,043.39	187,784.28	3,852.77	106,083.02	87,597.43	193,680.45	
Components (%)										1.1%	97.0%	2.0%	54.8%	45.2%	100.0%	
Unit Rate										2,046.76	188,094.11	3,859.13	106,258.04	87,741.96	194,000.00	

Miscellaneous covers the costs for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(2)b Traffic Signal Lamps Type B (3 vehicle lamps)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.12	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	69.12	0.00	0.00	0.00	69.12	69.12	
L012	Electrician	md	0.15	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	64.35	0.00	0.00	0.00	64.35	64.35	
L020	Unskilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	80.00	0.00	0.00	0.00	80.00	80.00	
W07272	Traffic Signal Lights (3 lamps)	set	1.00	0.0%	100.0%	0.0%	55.0%	45.0%	99,900.00	0.00	99,900.00	0.00	54,945.00	44,955.00	99,900.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.80	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	60.26	36.16	292.38	182.52	206.28	388.80	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
	Miscellaneous	LS	1.00	30.0%	30.0%	40.0%	50.0%	50.0%		914.61	914.61	1,219.48	1,524.35	1,524.35	3,048.70	3.0%
Total										1,266.00	100,884.20	2,521.77	57,258.10	47,413.87	104,671.97	
Components (%)										1.2%	96.4%	2.4%	54.7%	45.3%	100.0%	
Unit Rate		each								1,269.97	101,200.36	2,529.67	57,437.54	47,562.46	105,000.00	

Miscellaneous covers the costs for ancillary devices, cable connection, power reception, testing, etc.



## SPL 620(2)c Traffic Signal Lamps Type C (2 pedestrian lamps)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.12	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	69.12	0.00	0.00	0.00	69.12	69.12	
L012	Electrician	md	0.15	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	64.35	0.00	0.00	0.00	64.35	64.35	
L020	Unskilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	80.00	0.00	0.00	0.00	80.00	80.00	
W07271	Pedestrian Signal Lights (2 lamps)	set	1.00	0.0%	100.0%	0.0%	55.0%	45.0%	47,400.00	0.00	47,400.00	0.00	26,070.00	21,330.00	47,400.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.80	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	60.26	36.16	292.38	182.52	206.28	388.80	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
	Miscellaneous	LS	1.00	30.0%	30.0%	40.0%	50.0%	50.0%		412.11	442.11	589.48	736.85	736.85	1,473.70	3.0%
Total										793.50	47,911.70	1,891.77	27,595.60	23,001.37	50,596.97	
Components (%)										1.6%	94.7%	3.7%	54.5%	45.5%	100.0%	
Unit Rate			each							793.55	47,914.57	1,891.88	27,597.26	23,002.74	50,600.00	

Miscellaneous covers the costs for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(4)a Street Lighting Poles (single lamp)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	4.33	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	7.97	14.88	154.25	93.65	83.45	177.10	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.53	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4.07	7.28	37.99	25.37	23.97	49.34	
W0135	Backfill, Manpower + Compactor	m3	3.80	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	230.90	16.39	47.20	36.31	258.19	294.50	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.70	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.33	906.97	178.70	632.27	480.73	1,113.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.69	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.07	0.35	149.60	80.17	97.85	178.02	
W0237	Concrete Curing (reinforced concrete)	m3	0.69	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.21	0.23	0.53	0.41	2.55	2.96	
W0241	Formwork (reinforced concrete H<4m)	m2	4.35	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	589.33	390.37	7.74	28.62	958.83	987.45	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	95.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	344.81	1,717.83	174.40	1,204.66	1,032.38	2,237.04	
L002	Foreman	md	0.29	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	167.04	0.00	0.00	0.00	167.04	167.04	
L012	Electrician	md	0.34	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	145.86	0.00	0.00	0.00	145.86	145.86	
L020	Unskilled Labor	md	0.58	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	185.60	0.00	0.00	0.00	185.60	185.60	
W13001	Street Lighting Fixture (110~400W)	each	1.00	0.0%	100.0%	0.0%	60.0%	40.0%	7,920.00	0.00	7,920.00	0.00	4,752.00	3,168.00	7,920.00	
W13011	Street Lighting Stabilizer	each	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	2,600.00	0.00	2,600.00	0.00	1,690.00	910.00	2,600.00	
W13021	Street Lighting Lamp	each	1.00	0.0%	100.0%	0.0%	60.0%	40.0%	1,320.00	0.00	1,320.00	0.00	792.00	528.00	1,320.00	
W1201	Street Lighting Pole (single lamp), furnished	each	1.00	10.5%	60.5%	29.1%	56.5%	43.5%	16,500.00	1,730.43	9,975.63	4,793.94	9,327.24	7,172.76	16,500.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	1.54	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	116.01	69.60	562.83	351.35	397.09	748.44	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
W1001	Underground Cable Duct	m	30.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	1,444.44	7,398.05	2,047.51	5,118.46	5,771.54	10,890.00	
	Miscellaneous	LS	1.00	5.0%	60.0%	35.0%	50.0%	50.0%		69.96	839.47	489.69	699.56	699.56	1,399.12	3.0%
Total										5,171.69	33,210.48	9,654.30	25,438.30	22,598.17	48,036.47	
Components (%)										10.8%	69.1%	20.1%	53.0%	47.0%	100.0%	
Unit Rate		each								5,167.76	33,185.27	9,646.97	25,418.99	22,581.01	48,000.00	

Miscellaneous covers the cost for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(4)b Street Lighting Poles (double lamp)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	4.33	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	7.97	14.88	154.25	93.65	83.45	177.10	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.53	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4.07	7.28	37.99	25.37	23.97	49.34	
W0135	Backfill, Manpower + Compactor	m3	3.80	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	230.90	16.39	47.20	36.31	258.19	294.50	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.70	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.33	906.97	178.70	632.23	480.73	1,113.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.69	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.07	0.35	149.60	80.17	97.85	178.02	
W0237	Concrete Curing (reinforced concrete)	m3	0.69	74.6%	7.6%	17.8%	14.0%	86.0%	4.23	2.21	0.23	0.53	0.41	2.55	2.96	
W0241	Formwork (reinforced concrete 11<4m)	m2	4.35	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	589.33	390.37	7.74	28.62	958.83	987.45	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	95.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	344.81	1,717.83	174.40	1,204.66	1,032.38	2,237.04	
L002	Foreman	md	0.41	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	236.16	0.00	0.00	0.00	236.16	236.16	
L012	Electrician	md	0.49	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	210.21	0.00	0.00	0.00	210.21	210.21	
L020	Unskilled Labor	md	0.83	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	265.60	0.00	0.00	0.00	265.60	265.60	
W13001	Street Lighting Fixture (110~400W)	each	2.00	0.0%	100.0%	0.0%	60.0%	40.0%	7,920.00	0.00	15,840.00	0.00	9,504.00	6,336.00	15,840.00	
W13011	Street Lighting Stabilizer	each	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	2,600.00	0.00	2,600.00	0.00	1,690.00	910.00	2,600.00	
W13021	Street Lighting Lamp	each	2.00	0.0%	100.0%	0.0%	60.0%	40.0%	1,320.00	0.00	2,640.00	0.00	1,584.00	1,056.00	2,640.00	
W1202	Street Lighting Pole (double lamp), furnished	each	1.00	10.2%	61.2%	28.6%	56.8%	43.2%	17,100.00	1,747.67	10,464.11	4,888.22	9,715.12	7,384.88	17,100.00	
RO402-010	Truck Crane, Hydraulic 6-10t	hr	2.34	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	176.27	105.76	855.20	533.87	603.37	1,137.24	
Q0405-013	Lift Car, 12~13m	hr	1.89	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	154.50	66.51	2,009.19	1,206.09	1,024.11	2,230.20	
W1001	Underground Cable Duct	m	30.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	1,444.44	7,398.05	2,047.51	5,118.46	5,771.54	10,890.00	
	Miscellaneous	LS	1.00	5.0%	60.0%	35.0%	50.0%	50.0%		87.28	1,047.40	610.98	872.83	872.83	1,745.66	3.0%
Total										5,556.83	43,216.13	11,161.53	32,325.82	27,608.67	59,934.48	
Components (%)										9.3%	72.1%	18.6%	53.9%	46.1%	100.0%	
Unit Rate			each							5,553.63	43,191.26	11,155.11	32,307.22	27,592.78	59,900.00	

Miscellaneous covers the cost for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(4)c Bridge Lighting Poles (single lamp)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.29	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	167.04	0.00	0.00	0.00	167.04	167.04	
L012	Electrician	md	0.34	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	145.86	0.00	0.00	0.00	145.86	145.86	
L020	Unskilled Labor	md	0.58	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	185.60	0.00	0.00	0.00	185.60	185.60	
W13001	Street Lighting Fixture (110~400W)	each	1.00	0.0%	100.0%	0.0%	60.0%	40.0%	7,920.00	0.00	7,920.00	0.00	4,752.00	3,168.00	7,920.00	
W13011	Street Lighting Stabilizer	each	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	2,600.00	0.00	2,600.00	0.00	1,690.00	910.00	2,600.00	
W13021	Street Lighting Lamp	each	1.00	0.0%	100.0%	0.0%	60.0%	40.0%	1,320.00	0.00	1,320.00	0.00	792.00	528.00	1,320.00	
W1201	Street Lighting Pole (single lamp), furnished	each	1.00	10.5%	60.5%	29.1%	56.5%	43.5%	16,500.00	1,730.43	9,975.63	4,793.94	9,327.24	7,172.76	16,500.00	
RO402-005	Truck Crane, Hydraulic 2-5t	hr	1.54	18.2%	10.9%	70.9%	45.6%	54.4%	413.00	115.76	69.33	450.94	290.09	345.93	636.02	
Q0405-009	Lift Car, 8~9m	hr	0.95	9.9%	3.9%	86.2%	52.5%	47.5%	827.00	77.42	31.03	677.20	412.11	373.54	785.65	
W1011	Electric Cable Laying	m	30.00	22.1%	75.9%	1.9%	42.6%	57.4%	84.20	559.12	1,918.31	48.58	1,076.93	1,449.07	2,526.00	
	Miscellaneous	LS	1.00	5.0%	60.0%	35.0%	50.0%	50.0%		49.18	590.15	344.25	491.79	491.79	983.59	3.0%
Total										3,030.40	24,424.44	6,314.91	18,832.16	14,937.59	33,769.76	
Components (%)										9.0%	72.3%	18.7%	55.8%	44.2%	100.0%	
Unit Rate			each							3,033.12	24,446.32	6,320.57	18,849.03	14,950.97	33,800.00	

Miscellaneous covers the cost for fixing materials, ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(4)d Street Lighting Service Pole with Panel

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0105	Excavation, Backhoe 0.61m3	m3	8.82	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	16.23	30.30	314.20	190.75	169.99	360.74	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.59	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4.53	8.11	42.29	28.24	26.69	54.93	
W0135	Backfill, Manpower + Compactor	m3	8.23	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	500.09	35.50	102.24	78.63	559.20	637.83	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	1.17	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	45.67	1,515.94	298.69	1,056.80	803.50	1,860.30	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	1.15	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	46.79	0.58	249.33	133.62	163.08	296.70	
W0237	Concrete Curing (reinforced concrete)	m3	1.15	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	3.68	0.38	0.88	0.69	4.24	4.93	
W0241	Formwork (reinforced concrete H<4m)	m2	10.92	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	1,479.43	979.97	19.44	71.84	2,407.00	2,478.84	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	75.80	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	273.39	1,362.04	138.28	955.16	818.56	1,773.72	
L002	Foreman	md	0.12	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	69.12	0.00	0.00	0.00	69.12	69.12	
L012	Electrician	md	0.15	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	64.35	0.00	0.00	0.00	64.35	64.35	
L020	Unskilled Labor	md	0.25	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	80.00	0.00	0.00	0.00	80.00	80.00	
M13061	Lighting Panel for Street Lights	each	1.00	0.0%	100.0%	0.0%	55.0%	45.0%	20,300.00	0.00	20,300.00	0.00	11,165.00	9,135.00	20,300.00	
M13160	Electric Service Meter	each	1.00	0.0%	100.0%	0.0%	65.0%	35.0%	3,610.00	0.00	3,610.00	0.00	2,346.50	1,263.50	3,610.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	0.80	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	60.26	36.16	292.38	182.52	206.28	388.80	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
M13051	Electric Cable	m	60.00	0.0%	100.0%	0.0%	55.0%	45.0%	62.30	0.00	3,738.00	0.00	2,055.90	1,682.10	3,738.00	
M1001	Underground Cable Duct	m	30.00	13.3%	67.9%	18.8%	47.0%	53.0%	363.00	1,444.44	7,398.05	2,047.51	5,118.46	5,771.54	10,890.00	
	Miscellaneous	LS	1.00	5.0%	50.0%	45.0%	50.0%	50.0%		71.59	715.94	644.35	715.94	715.94	1,431.85	3.0%
	Total									4,237.25	39,764.40	5,159.49	24,706.28	24,454.85	49,161.14	
	Components (%)									8.6%	80.9%	10.5%	50.3%	49.7%	100.0%	
	Unit Rate	each								4,240.60	39,795.83	5,163.57	24,725.81	24,474.19	49,200.00	

Miscellaneous covers the cost for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(4)e Fluorescent Lighting for Underpass Culvert

Unit: 10.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	0.10	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	57.60	0.00	0.00	0.00	57.60	57.60	
L012	Electrician	md	0.80	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	343.20	0.00	0.00	0.00	343.20	343.20	
L020	Unskilled Labor	md	0.30	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	96.00	0.00	0.00	0.00	96.00	96.00	
M13131	Ceiling Lamp, 40W 220V Fluorescent	each	10.00	0.0%	100.0%	0.0%	60.0%	40.0%	496.00	0.00	4,960.00	0.00	2,976.00	1,984.00	4,960.00	
M13151	Lighting Fixtures, Box Type	each	2.00	0.0%	100.0%	0.0%	55.0%	45.0%	30.50	0.00	61.00	0.00	33.55	27.45	61.00	
M13051	One-way Wall Switch	each	54.00	0.0%	100.0%	0.0%	55.0%	45.0%	62.30	0.00	3,364.20	0.00	1,850.31	1,513.89	3,364.20	
	Electric Cable	m														
	Miscellaneous	LS	1.00	8.0%	45.0%	47.0%	40.0%	60.0%		28.42	159.88	166.98	142.11	213.17	355.28	4.0%
Total										525.22	8,545.08	166.98	5,001.97	4,235.31	9,237.28	
Components (%)										5.7%	92.5%	1.8%	54.1%	45.9%	100.0%	
Unit Rate			each							52.54	854.76	16.70	500.34	423.66	924.00	

Miscellaneous covers the cost for minor tools, ancillary devices, power reception, testing, etc.

## SPL 620(5)a Relocation of Street Lighting Poles (Single Lamp)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.69	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	171.02	90.22	357.00	251.79	366.45	618.24	
W0025	Disposal of Demolished Debris	m3	0.69	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	15.69	12.26	67.27	44.52	50.70	95.22	
W0105	Excavation, Backhoe 0.61m3	m3	4.33	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	7.97	14.88	154.25	93.65	83.45	177.10	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.53	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4.07	7.28	37.99	25.37	23.97	49.34	
W0135	Backfill, Manpower + Compactor	m3	3.80	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	230.90	16.39	47.20	36.31	258.19	294.50	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.70	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.33	906.97	178.70	632.27	480.73	1,113.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.69	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.07	0.35	149.60	80.17	97.85	178.02	
W0237	Concrete Curing (reinforced concrete)	m3	0.69	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.21	0.23	0.53	0.41	2.55	2.96	
W0241	Formwork (reinforced concrete H<4m)	m2	4.35	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	589.33	390.37	7.74	28.62	958.83	987.45	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	95.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	344.81	1,717.83	174.40	1,204.66	1,032.38	2,237.04	
L002	Foreman	md	0.38	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	218.88	0.00	0.00	0.00	218.88	218.88	
L012	Electrician	md	0.44	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	188.76	0.00	0.00	0.00	188.76	188.76	
L020	Unskilled Labor	md	0.75	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	240.00	0.00	0.00	0.00	240.00	240.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	1.91	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	143.88	86.33	698.05	435.76	492.50	928.26	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
M13051	Electric Cable	m	30.00	0.0%	100.0%	0.0%	55.0%	45.0%	62.30	0.00	1,869.00	0.00	1,027.95	841.05	1,869.00	
	Miscellaneous	LS	1.00	10.0%	45.0%	45.0%	50.0%	50.0%		61.91	278.61	278.61	309.56	309.56	619.13	6.0%
	Total									2,352.50	5,424.13	3,161.27	4,777.28	6,180.62	10,937.90	
	Components (%)									21.5%	49.6%	28.9%	43.7%	56.3%	100.0%	
	Unit Rate	each								2,344.35	5,405.34	3,150.31	4,760.72	6,139.28	10,900.00	

Miscellaneous covers the cost for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(5)b Relocation of Street Lighting Poles (Dual Lamp)

Unit: 1.00 each

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W0013	Demolition by Pneumatic Handhold Breaker (Lightly Reinforced Structures)	m3	0.69	27.7%	14.6%	57.7%	40.7%	59.3%	896.00	171.02	90.22	357.00	251.79	366.45	618.24	
W0025	Disposal of Demolished Debris	m3	0.69	16.5%	12.9%	70.6%	46.8%	53.2%	138.00	15.69	12.26	67.27	44.52	50.70	95.22	
W0105	Excavation, Backhoe 0.61m3	m3	4.33	4.5%	8.4%	87.1%	52.9%	47.1%	40.90	7.97	14.88	154.25	93.65	83.45	177.10	
W0111	Disposal of Surplus Soil (backhoe loading)	m3	0.53	8.2%	14.8%	77.0%	51.4%	48.6%	93.10	4.07	7.28	37.99	25.37	23.97	49.34	
W0135	Backfill, Manpower + Compactor	m3	3.80	78.4%	5.6%	16.0%	12.3%	87.7%	77.50	230.90	16.39	47.20	36.31	258.19	294.50	
W0203	Concrete (Class A, 21MPa, max agg. 38mm)	m3	0.70	2.5%	81.5%	16.1%	56.8%	43.2%	1,590.00	27.33	906.97	178.70	632.27	480.73	1,113.00	Loss 2.0%
W0232	Concrete Pouring by Pump Vehicle (reinforced concrete)	m3	0.69	15.8%	0.2%	84.0%	45.0%	55.0%	258.00	28.07	0.35	149.60	80.17	97.85	178.02	
W0237	Concrete Curing (reinforced concrete)	m3	0.69	74.6%	7.6%	17.8%	14.0%	86.0%	4.29	2.21	0.23	0.53	0.41	2.55	2.96	
W0241	Formwork (reinforced concrete H<4m)	m2	4.35	59.7%	39.5%	0.8%	2.9%	97.1%	227.00	589.33	390.37	7.74	28.62	958.83	987.45	
W0251	Reinforcement Grade 40, cutting, bending & assembly	kg	95.60	15.4%	76.8%	7.8%	53.9%	46.1%	23.40	344.81	1,717.83	174.40	1,204.66	1,032.38	2,237.04	
L002	Foreman	md	0.50	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	288.00	0.00	0.00	0.00	288.00	288.00	
L012	Electrician	md	0.59	100.0%	0.0%	0.0%	0.0%	100.0%	429.00	253.11	0.00	0.00	0.00	253.11	253.11	
L020	Unskilled Labor	md	1.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	320.00	0.00	0.00	0.00	320.00	320.00	
R0402-010	Truck Crane, Hydraulic 6-10t	hr	1.91	15.5%	9.3%	75.2%	46.9%	53.1%	486.00	143.88	86.33	698.05	435.76	492.50	928.26	
Q0405-013	Lift Car, 12~13m	hr	0.95	6.9%	3.0%	90.1%	54.1%	45.9%	1,180.00	77.66	33.43	1,009.91	606.23	514.77	1,121.00	
M13051	Electric Cable	m	30.00	0.0%	100.0%	0.0%	55.0%	45.0%	62.30	0.00	1,869.00	0.00	1,027.95	841.05	1,869.00	
	Miscellaneous	LS	1.00	10.0%	45.0%	45.0%	50.0%	50.0%		63.19	284.37	284.37	315.97	315.97	631.93	6.0%
	Total									2,567.25	5,429.90	3,167.03	4,783.68	6,380.50	11,164.17	
	Components (%)									23.0%	48.6%	28.4%	42.8%	57.2%	100.0%	
	Unit Rate	each								2,575.48	5,447.32	3,177.19	4,799.03	6,400.97	11,200.00	

Miscellaneous covers the cost for ancillary devices, cable connection, power reception, testing, etc.

## SPL 620(6) Toll Gate Facilities

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W3401	Toll Gate Canopy Structure with Catwalk & Stairways	m2	978.10	7.0%	50.0%	43.0%	55.0%	45.0%	3,310.00	226,625.77	1,618,755.50	1,392,129.73	1,780,631.05	1,456,879.95	3,237,511.00	
W3402	Toll Islands with barriers, cable duct & trench, protection gate, etc.	m2	657.00	12.0%	44.0%	44.0%	45.0%	55.0%	980.00	77,263.20	283,298.40	283,298.40	289,737.00	354,123.00	643,860.00	
W3403	Administration Building with fixtures, equipment and furniture	m2	494.60	10.0%	50.0%	40.0%	50.0%	50.0%	6,960.00	344,241.60	1,721,208.00	1,376,966.40	1,721,208.00	1,721,208.00	3,442,416.00	
W3404	Electrical Service Center with fixtures, generator, and equipment	m2	46.38	10.0%	54.0%	36.0%	50.0%	50.0%	5,660.00	26,248.25	141,740.55	94,493.70	131,241.25	131,241.25	262,482.50	
W3405	Mini Building with fixtures	m2	33.25	10.0%	54.0%	36.0%	50.0%	50.0%	5,220.00	17,356.50	93,725.10	62,483.40	86,782.50	86,782.50	173,565.00	
W3406	Water Tank System (deep well with elevated tank)	L.S.	1.00	9.0%	54.0%	37.0%	55.0%	45.0%	380,000.00	34,200.00	205,200.00	140,600.00	209,000.00	171,000.00	380,000.00	
W3407	Toll Operation Equipment	L.S.	1.00	6.0%	75.0%	19.0%	80.0%	20.0%	78,400,000.00	4,704,000.00	58,800,000.00	14,896,000.00	62,720,000.00	15,680,000.00	78,400,000.00	
	Miscellaneous	L.S.	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									5,429,935.32	62,863,927.55	18,245,971.63	66,938,599.80	19,601,234.70	86,539,834.50	
	Components (%)									6.3%	72.6%	21.1%	77.4%	22.6%	100.0%	
	Unit Rate	L.S.								5,427,435.91	62,834,991.13	18,237,572.96	66,907,787.80	19,592,212.20	86,500,000.00	

## Part K Mobilization and Demobilization

## SPL 800 Mobilization and Demobilization

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W2001	Heavy Equipment Assembly & Disassembly	LS	1.00	24.6%	8.0%	67.3%	41.7%	58.3%	40,500.00	9,971.52	3,260.20	27,268.27	16,875.24	23,624.76	40,500.00	
W2002	Transportation of Disassembled Equipment	LS	1.00	4.2%	9.9%	85.9%	53.1%	46.9%	64,100.00	2,669.79	6,372.09	55,058.12	34,062.74	30,037.26	64,100.00	
W2003	Other Equipment & Material Haulage	LS	1.00	9.1%	15.3%	75.6%	50.9%	49.1%	85,900.00	7,813.70	13,169.48	64,916.81	43,765.53	42,134.47	85,900.00	
W2004	Establishment of Temporary Site Office & Yard	LS	1.00	10.0%	50.0%	40.0%	45.0%	55.0%	345,000.00	34,500.00	172,500.00	138,000.00	155,250.00	189,750.00	345,000.00	
	Miscellaneous	LS	1.00	10.0%	48.0%	42.0%	50.0%	50.0%		16,065.00	77,112.00	67,473.00	80,325.00	80,325.00	160,650.00	30.0%
Total										71,020.02	272,413.77	352,716.21	330,278.51	365,871.49	696,150.00	
Components (%)										10.2%	39.1%	50.7%	47.4%	52.6%	100.0%	
Unit Rate		L.S.								71,004.71	272,355.08	352,640.21	330,207.35	365,792.65	696,000.00	

Miscellaneous covers the cost for maintenance works, common temporary works, etc.

## Part X Provisional Sum

## SPL 900(1) Provisional Sum for Traffic Management during Construction

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
L002	Foreman	md	27.00	100.0%	0.0%	0.0%	0.0%	100.0%	576.00	15,552.00	0.00	0.00	0.00	15,552.00	15,552.00	
L020	Unskilled Labor	md	720.00	100.0%	0.0%	0.0%	0.0%	100.0%	320.00	230,400.00	0.00	0.00	0.00	230,400.00	230,400.00	
R0603-002	Pick-up truck 2.2t	hr	402.30	14.2%	10.8%	75.0%	47.8%	52.2%	590.00	33,704.69	25,634.56	178,017.75	113,364.36	123,992.64	237,357.00	
	Miscellaneous	LS	1.00	0.0%	45.0%	55.0%	50.0%	50.0%		0.00	4,349.78	5,316.40	4,833.09	4,833.09	9,666.18	2.0%
Total										279,656.69	29,984.34	183,334.15	118,197.45	374,777.73	492,975.18	
Components (%)										56.7%	6.1%	37.2%	24.0%	76.0%	100.0%	
Unit Rate			L.S.							279,670.77	29,985.85	183,343.38	118,203.40	374,796.60	493,000.00	

Miscellaneous covers the costs for traffic cones, barriers, signs, minor tools, etc.

Number of locations = 6  
Average Period per location = 30 days

## SPL 900(2) Provisional Sum for Relocation of Existing Utilities

Unit: 1.00 L.S.

Unit: 1.00 L.S.																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W3501	Relocation of Existing Lighting Poles	each	6.00	27.3%	22.5%	50.2%	38.8%	61.2%	6,710.00	11,000.61	9,062.09	20,197.30	15,621.09	24,638.91	40,260.00	
W3502	Relocation of Underground Conduit	m	302.00	18.3%	24.6%	57.1%	44.6%	55.4%	444.00	24,539.27	32,987.90	76,560.82	59,801.98	74,286.02	134,088.00	
W3503	Relocation of Watermain	m	60.00	5.2%	77.0%	17.7%	55.7%	44.3%	1,460.00	4,582.75	67,479.08	15,538.17	48,803.20	38,796.80	87,600.00	
W3504	Relocation of Sewer Pipe	m	121.00	16.4%	47.0%	36.6%	48.1%	51.9%	3,310.00	65,747.38	188,158.09	146,604.52	192,466.65	208,043.35	400,510.00	
	Miscellaneous	LS	1.00	30.0%	40.0%	30.0%	50.0%	50.0%		19,873.74	26,498.32	19,873.74	33,122.90	33,122.90	66,245.80	10.0%
Total										125,743.76	324,185.48	278,774.56	349,815.81	378,887.99	728,703.80	
Components (%)										17.3%	44.5%	38.3%	48.0%	52.0%	100.0%	
Unit Rate				L.S.						125,794.87	324,317.25	278,887.88	349,958.00	379,042.00	729,000.00	

Miscellaneous covers the costs for compensation, extra works, etc.

## SPL 900(3) Provisional Sum for Geotechnical Investigation

Unit: 1.00 L.S.

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
#4001	Soil Investigation Boring	m	30.00	18.0%	8.0%	74.0%	50.0%	50.0%	2,950.00	15,930.00	7,080.00	65,490.00	44,250.00	44,250.00	88,500.00	20.0%
#4002	Soil Investigation Standard Penetration Test	each	30.00	25.0%	5.0%	70.0%	50.0%	50.0%	1,630.00	12,225.00	2,445.00	34,230.00	24,450.00	24,450.00	48,900.00	
#4003	Soil investigation Laboratory Test	set	6.00	30.0%	15.0%	55.0%	50.0%	50.0%	18,900.00	34,020.00	17,010.00	62,370.00	56,700.00	56,700.00	113,400.00	
	Miscellaneous	LS	1.00	10.0%	10.0%	80.0%	30.0%	70.0%		5,016.00	5,016.00	40,128.00	15,048.00	35,112.00	50,160.00	
	Total									67,191.00	31,551.00	202,218.00	140,448.00	160,512.00	300,960.00	
	Components (%)									22.3%	10.5%	67.2%	46.7%	53.3%	100.0%	
	Unit Rate	L.S.								67,199.93	31,555.19	202,244.88	140,466.67	160,533.33	301,000.00	

Miscellaneous covers the cost for mobilization, falseworks, reporting, overhead for the sub contractor, etc.

## SPL 900(4) Provisional Sum for Maintenance and Repair of Existing Access Road

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Total (PP)	Remarks
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
#3511	Repair & Maintenance of Existing Access Road	m2	1,700.00	21.1%	16.4%	62.5%	41.1%	58.9%	75.40	27,069.49	20,968.07	80,142.43	52,628.55	75,551.45	128,180.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									27,069.49	20,968.07	80,142.43	52,628.55	75,551.45	128,180.00	
	Components (%)									21.1%	16.4%	62.5%	41.1%	58.9%	100.0%	
	Unit Rate	L.S.								27,031.48	20,938.63	80,029.89	52,554.64	75,445.36	128,000.00	

## SPL 900(5) Provisional Sum for Environmental Compliance Requirements

Unit: 1.00 L.S.

Provisional Bid for Environmental Compliance Requirements																
Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W4101	Environmental Compliance	km	6.05	50.2%	49.0%	0.8%	0.8%	99.2%	99,500.00	302,094.92	295,158.71	4,721.37	4,721.37	597,253.63	601,975.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									302,094.92	295,158.71	4,721.37	4,721.37	597,253.63	601,975.00	
	Components (%)									50.2%	49.0%	0.8%	0.8%	99.2%	100.0%	
	Unit Rate	L.S.								302,107.47	295,170.96	4,721.57	4,721.57	597,278.43	602,000.00	

## SPL 900(6) Provisional Sum for Health and Safety Requirements

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
W4111	Health and Safety Requirements	day	720.00	10.0%	55.0%	35.0%	40.0%	60.0%	686.00	49,392.00	271,656.00	172,872.00	197,568.00	296,352.00	493,920.00	
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.0%
	Total									49,392.00	271,656.00	172,872.00	197,568.00	296,352.00	493,920.00	
	Components (%)									10.0%	55.0%	35.0%	40.0%	60.0%	100.0%	
	Unit Rate	L.S.								49,400.00	271,700.00	172,900.00	197,600.00	296,400.00	494,000.00	

## SPL 900(7) Provisional Sum for Overseas Development Assistance (ODA) Recognition Plate

Unit: 1.00 L.S.

Unit Rate										Amount					Remarks	
Item No.	Description	Unit	Quantity	Component (%)					Total (PP)	Component (PP)				Total (PP)		
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign			Local
W4121	Overseas Development Assistance (ODA) Recognition Plate	each	2.00	1.8%	96.1%	2.1%	63.1%	36.9%	93,600.00	3,338.76	179,964.39	3,896.85	118,055.94	69,144.06	187,200.00	
	Miscellaneous	LS	1.00	30.0%	40.0%	30.0%	50.0%	50.0%		1,123.20	1,497.60	1,123.20	1,872.00	1,872.00	3,744.00	2.0%
	Total									4,461.96	181,461.99	5,020.05	119,927.94	71,016.06	190,944.00	
	Components (%)									2.3%	95.0%	2.6%	62.8%	37.2%	100.0%	
	Unit Rate	L.S.								4,463.27	181,515.21	5,021.52	119,963.12	71,036.88	191,000.00	

Miscellaneous covers the costs for maintenance, etc.

## SPL 900(8) Provisional Sum for Contingency

Unit: 1.00 L.S.

Item No.	Description	Unit	Quantity	Unit Rate					Total (PP)	Amount					Remarks	
				Component (%)						Component (PP)						
				Lab.	Mat.	Equip.	For.	Local		Labor	Material	Equipment	Foreign	Local		
#4201	Contingency	L.S.	1.00	15.0%	45.0%	40.0%	50.0%	50.0%	1,200,000.00	180,000.00	540,000.00	480,000.00	600,000.00	600,000.00	1,200,000.00	0.0%
	Miscellaneous	LS	1.00							0.00	0.00	0.00	0.00	0.00	0.00	
	Total									180,000.00	540,000.00	480,000.00	600,000.00	600,000.00	1,200,000.00	
	Components (%)									15.0%	45.0%	40.0%	50.0%	50.0%	100.0%	
	Unit Rate	L.S.								180,000.00	540,000.00	480,000.00	600,000.00	600,000.00	1,200,000.00	